

Golden Treasury Series

SIR THOMAS BROWNE'S

HYDRIOTAPHIA

AND THE

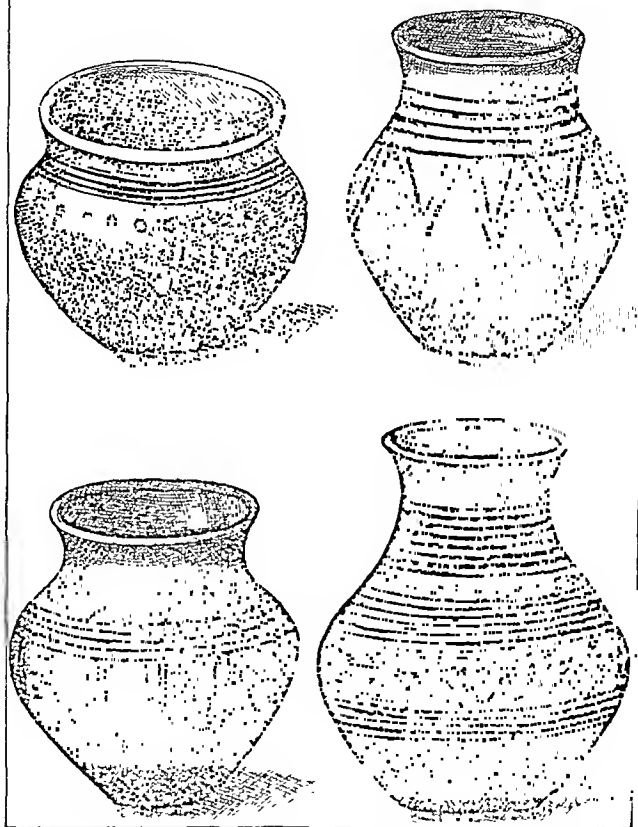
GARDEN OF CYRUS



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En sum quod digitis Quinque Levatur onus — PROPERT. [*Eleg.* iv. 11. 14].

SIR THOMAS BROWNE'S  
HYDRIOTAPHIA  
AND THE  
GARDEN OF CYRUS

EDITED BY THE LATE  
W. A. GREENHILL, M.D. OXON.

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## PREFACE.

THE *Hydriotaphia* and *Garden of Cyrus* were published first as one small octavo volume, in 1658, the Epistles Dedicatory being dated May 1. Sir Thomas Browne was then in his fifty-third year, and had been settled for twenty-two years in practice as a physician at Norwich. In the Bibliography which follows, a full list is given of the various editions which have appeared of these two "Discourses," as their author called them.

The *Hydriotaphia* has taken its place as an English classic, unique in its subject, and full of charm in the way in which that subject is handled. The *Garden of Cyrus* is not so well known, and contains less of Sir Thomas Browne's characteristic writing, but the elaborate learning with which the curious question is pursued has not failed to attract the lovers of quaint and recondite lore. It is worth notice, that these treatises were written when Cromwell held the supreme power in England. But nothing has interfered with

their philosophic calm and old-world learning; there is not a hint, except in one gentle complaint against "this ill-judging age," from which the reader could infer that any unusual events had disturbed the country.

In the preparation of this edition, no great difficulty was experienced in settling the text, and such *cruces* as presented themselves in the *Religio Medici* were almost entirely absent. At the same time, there were certain variations in the texts of different early editions, which required careful adjustment, and a considerable number of errors, not of any very great importance separately, which it has been the duty of an editor anxious to do full justice to his author to correct with care and with caution. It will not be without regret, that from the necessity of following Sir Thomas Browne's own directions, readers will see the words "gnawed out of our graves," in place of the much more poetic "knaved." In the Notes will be found a collation of all the editions published during the author's lifetime, and presumably subjected to his revision, with references also to later editions, by means of which the present settlement of the text has been arrived at. In the spelling and punctuation, it has not been thought desirable to follow the old editions, and both have been modernized freely.

A few words should be said as to the Notes. For

the *Hydriotaphia*, these were compiled mainly by Dr. Greenhill, partly from the annotations of previous editors, his obligations to whom are carefully acknowledged, and partly they are his own. In the case of the *Garden of Cyrus*, it was Dr. Greenhill's opinion, that any attempt to collect a body of notes upon the zoological, botanical and antiquarian subjects discussed, would be a failure, owing to the difference between the scientific learning of the seventeenth century and of the nineteenth. Readers to whom the treatise would be interesting, might be trusted, he thought, to have sufficient previous knowledge to enable them to follow the author in his investigations. Therefore, a few explanatory notes only have been added (and these, with two or three exceptions, not prepared by Dr. Greenhill), which are for the most part confined to giving references to some of the less obvious allusions in the text, and which attempt to do for the *Garden of Cyrus* in some degree what he did for the *Hydriotaphia*.

But the merit of the whole work belongs distinctly to Dr. Greenhill himself. He had been engaged upon it for some years ; it was put aside from ill health and other causes, and was resumed, to be stopped suddenly, when very near completion, by his lamented death. No one knows better than the writer of these

lines, how much the book has lost by being deprived of Dr. Greenhill's final supervision. His learning, his critical acumen, his patient and sympathetic zeal, his unfailing loyalty to his author, as evidenced by his elaborate edition of the *Religio Medici*, made him eminently the one man who was most fit to introduce Sir Thomas Browne's writings to modern readers. All the praise that may be given to this book belongs to him; if any one finds any fault, the blame must be borne by a disciple who can follow his master *non passibus æquis* only.

It is right to add that several friends have been consulted at various times while this book was in preparation, for whose good offices sincere thanks are due. Among these are especially to be named the late J. Dykes Campbell, Esq., the Rev. W. D. Macray, the Rev. Edward Marshall, and R. D. Wilson, Esq. Very special help has been given by M. H. Wilkin, Esq., by the kind loan of his valuable copies of early editions of Sir Thomas Browne's works.

EDWARD H. MARSHALL.

HASTINGS,

June 22, 1895.

## APPENDIX No. I.

### LIST OF EDITIONS.

A. 1658. *Sm. 8vo. London, Brome.*

Title—"Hydriotaphia, Urne-buriall, or, A Discourse of the Sepulchrell Urnes lately found in Norfolk. Together with The Garden of Cyrus, or the Quincunciall, Lozenge, or Net-work Plantations of the Ancients, Artificially, Naturally, Mystically considered. With Sundry Observations. By Thomas Browne D. of Physick." *First Edition. (British Museum.)*

B. 1658. *Sm. Fol. London, Ekins.* "Printed for the Good of the Commonwealth."

Appended (with the *Religio Medici*) to the "*third*" edition of the *Pseudod. Epid.* Title—"Religio Medici: whereunto is added a Discourse, &c. . . . By Thomas Brown Doctour of Physick." Printed in double columns. *Second Edition. (British Museum.)*

It is impossible to say for certain whether this (B) is the *second* or the *third* edition. Wilkin calls it the *third*, and thinks that it came out after C, but offers nothing by way of proof. It is here supposed to be the *second* edition, because it is appended to the *third* edition of the *Vulgar Errors*, whereas C is appended to the



*fourth*; and also because it seems improbable that the editor could ever have seen C, as he has several times followed the text of A, even when the reading of C is better. However, it is a matter of little or no importance.

C. 1658. *4to. London, Brome.*

Appended to the "*fourth*" edition of the *Vulgar Errors*. Title—"Hydriotaphia, Urn Buriall, &c. By Thomas Browne, D. of Physick." *Third* Edition; with two pages of "Marginall Illustrations omitted or to be added to the Discourses of Urn Burial and of the Garden of Cyrus," and some Errata. (*British Museum.*)

C\* = Errata in C.

D. 1669. *4to. London, Dod.*

Appended to the *fifth* edition of the *Vulgar Errors*. Title—"Hydriotaphia, Urn Burial, &c. By Thomas Browne, Dr. of Physick." *Fourth* edition; with the same two pages of "Marginall Illustrations," but without the *Errata*, which however had not been corrected in the text. The last edition published during the Author's lifetime. (*Wilkin.*)

E. 1686. *Folio, London, Brome.*

Appended to the *seventh* edition of *Vulgar Errors*, and *Religio Medici*, and prefixed to the *Garden of Cyrus* and certain *Miscellany Tracts*, forming the handsome volume called "The Works of the learned Sr. Thomas Brown; Kt. Doctor of Physick, late of Norwich," said to have been edited by Dr. (afterwards Abp.) Tenison, but probably for no other reason than that his name is appended to the prefatory notice to the *Miscellany Tracts*. *Fifth* Edition. (*British Museum.*)

F. 1736. 8vo. London, Curll (Price 1s. 6d.).

Title—"Hydriotaphia: or Urn-Burial. Two Discourses of the Sepulchral Urns found in Norfolk, 1658 and 1667." Contains also the *Brampton Urns*, and chapters 1, 2 and 3 of the *Garden of Cyrus*. The first chapter of the *Urn Burial* is called the *Introduction*, and chapters 2 to 5 are called sections 1 to 4. Probably rather scarce. *Sixth* edition, though in the title-page wrongly described as *the fourth*. (*British Museum*.)

G. 1822. 12mo. Edinburgh, Blackwood; and London, Cadell.

Edited (together with the *Letter to a Friend* and the *Museum Clausum*) by "J. C.," viz. James Crossley of Manchester, with the title "Tracts by Sir Thomas Browne, Knight, M.D. A new Edition." Agrees very much with the text of F, and adopts the same division of sections. Probably rather scarce. *Seventh* Edition. (*British Museum*.)

H. 1831. Sm. 8vo. Cambridge (U. S.), Hilliard and Brown.

In the "Miscellaneous Works of Sir Thomas Browne," forming the third volume of the "Library of Old English Prose Writers," edited by the Rev. Alexander Young, D.D., of Boston. The volume contains also *Religio Medici*, and the *Letter to a Friend*, with some extracts from *Vulgar Errors*. *Eighth* Edition. (*Only the title-page and Preface seen by the present Editor*.)

I. 1835. 8vo. London, Pickering.

In the third volume of Wilkin's edition of Browne's works; called the *eighth* edition, but really the *ninth*. (*British Museum*.)

J. 1838. *Sm. 8vo. London, Rickerby.*

Appended to the *Religio Medici*, edited by J. A. St. John. Contains an Introduction and some notes by the Editor, and a copious Table of Contents. *Tenth Edition. (British Museum.)*

This volume (which forms vol. 6 of a collection called "The Masterpieces of English Prose Literature" is also found with the date 1848 on the title-page, and without St. John's name. (*Univ. Coll., London.*)

K. 1847. *Sm. 8vo. London, H. G. Bohn.*

In the third volume of Browne's works, forming part of one of Bohn's "Libraries." An abridged reprint of Wilkin's edition (I). Called the *ninth* edition, but more properly the *eleventh*. (*British Museum.*)

The three volumes are also found with title-pages variously dated, from 1852 to 1884.

L. 1861. *Sm. 8vo. Boston (U. S.), Ticknor and Fields.*

In a volume edited by J. T. F. (viz. *James T. Fields*), appended to the *Religio Medici*, *Letter to a Friend*, and *Christian Morals*, and followed by extracts from the *Garden of Cyrus*, *Vulgar Errors*, and other writings. It contains a "Biographical sketch of the Author." *Twelfth Edition. (Not seen by the present Editor.)*

M. 1862. *Sm. 8vo. Boston (U. S.), Ticknor and Fields.*

A reprint of the preceding (or perhaps only a reprint title-page), called (*on the back of the title-page*) "*Second Edition.*" *Thirteenth edition. (Editor.)*

N. 1869. Sm. 8vo. London, Sampson Low, Son, and Marston.

Appended to the *Religio Medici*, and followed by the *Letter to a Friend*. Edited, with an Introduction and Notes, by J. W. Willis Bund. The text is stated in the Introduction to be taken from E (1686). *Fourteenth* Edition. "Some of Browne's notes to that edition have been omitted, and most of the references, as they refer to books which are not likely to be met with by the general reader." (*British Museum*.)

O. 1886. Sm. 8vo. London, Walter Scott.

Appended to the *Religio Medici*, and followed by the essay *On Dreams*, the *Letter to a Friend*, and *Christian Morals*. With an Introduction by J. A. Symonds. Shortly after publication there was issued on a small piece of coloured paper a list of Errata, which, however, relates only to the Introduction. This volume is one of the "Camelot Classics." *Fifteenth* Edition. (*British Museum*.)

P. 1890. 8vo. London, Reeves and Turner.

Appended to Aubrey's "Miscellanies," pp. 223-285. Called the "tenth" edition, but more properly the *sixteenth*. (*British Museum*.)

Q. 1892. 32mo. London, David Stott.

Included in the *Religio Medici and Other Essays*, edited by D. Lloyd Roberts, M.D., F.R.C.P. Contains a Biographical Introduction by the Editor. The text is there said to be "reprinted from the edition of 1658 (the first), with the exception of a few typographical corrections, amended in the subsequent edition." *Seventeenth* Edition. (*British Museum*.)

R. 1893. 8vo. London, Whittingham.

Contains also the *Brampton Urns*; edited by Sir John Evans, K.C.B., F.R.S., F.S.A. An elegant reprint of A, incorporating the Errata etc. in C, with an Introduction and Notes by the Editor. *Eighteenth* Edition. (*British Museum.*)

S. 1894. 8vo. Canterbury, G. Moreton.

Republished with the *Religio Medici*, *Letter to a Friend*, and *Christian Morals*, edited, with an "Illustrated Memoir" of Sir T. B., by G. B. M. A reprint of A, incorporating the Errata in C. *Nineteenth* Edition.

The GARDEN OF CYRUS is contained (either wholly or in part), in all the editions of the *Urn Burial* except those called G, H, J, N, O, P, Q, R and S.

## APPENDIX No. II.

### THE MEASUREMENTS OF THE SKULL OF SIR THOMAS BROWNE.

By CHARLES WILLIAMS, F.R.C.S.E., NORWICH.

SIR THOMAS BROWNE died on Oct. 19, 1682, and was buried in the church of St. Peter Mancroft, Norwich. In 1840 his skull was "knaved out of its grave" by the sexton. It appears that some workmen who were employed in making a grave for the incumbent's wife accidentally broke into the vault which contained the coffin of Sir Thomas Browne. In some unexplained way they fractured the lid of the coffin, and thereby exposed the skeleton. The sexton did not consider it an act of sacrilege to take possession of the skull and to offer it for sale. Eventually the late Dr. Edward Lubbock became its possessor, and in 1845 the skull was deposited by him in the pathological museum of the Norfolk and Norwich Hospital, where it is still to be seen. It has recently been claimed by the vicar of St. Peter Mancroft, but unsuccessfully.

The measurements of the skull are expressed in English inches and tenths, and have recently been taken by means of Flower's craniometer, according to the plan suggested

and carried out so extensively by the late Dr. Barnard Davis, the possessor of 1,800 human skulls, recently deposited in the Museum of the Royal College of Surgeons of England, and to whom, as well as to Dr. Thurnham, the science of anthropology is so deeply indebted for the production of that great work, *Crania Britannica*. The skull may be placed in the dolichocephalic class. It is quite edentulous, but is in a state of excellent preservation. The forehead is remarkably low and depressed; the head is unusually long, the back part exhibiting a singular appearance of depth and capaciousness. The following are the measurements:—Internal capacity, in ounces avoirdupois of dry sand, 69 ounces. Circumference round the forehead about an inch above the naso-frontal suture and over the most prominent part of the occiput, 21.5 in. Fronto-occipital arch, from the fronto-nasal suture along the centre of the calvarium to the posterior edge of the foramen magnum, 15 in.—(a) length of the frontal portion, 5 in.; (b) length of the parietal portion, 5 in.; (c) length of the occipital portion, 5 in. Intermastoid arch, from the tip of one mastoid process across the vertex to the tip of the other, 14.5 in. Longitudinal diameter, or length from the glabella to the most prominent point of the occiput, the glabella being regarded as about an inch above the naso-frontal suture, 7.7 in. Transverse diameter, or greatest breadth—interparietal, 5.8 in.; intertemporal, 5.4 in.—(a) frontal breadth at the most divergent points of the bone in the coronal suture, 5 in.; (b) parietal breadth at the protuberances, 5.6 in.; (c) occipital breadth at the junction of the occipital with the posterior inferior angles of the parietals, 4.8 in. Height from the plane of the foramen magnum at its centre to that of the vertex, 5.1 in.; (a) frontal height,

5.5 in.; (b) parietal height, 5 in.; (c) occipital height, 4.8 in.; taken from the axis of the auditory foramina these measurements are respectively 4.3 in., 4 in., and 4.5 in. From one auditory foramen to the other—(a) over the most prominent part of the frontal bone, 11 in.; (b) over the parietal bones, 12 in.; (c) over the occipital bone, 13 in. Length of the face from the nasal suture to the tip of the chin, an allowance of 0.6 in. being made for the absent teeth and absorption of alveolar ridges, 4.5 in. Breadth of the face from the most prominent point of one zygomatic arch to that of the other, 5.2 in.; from the external border of one orbital ridge to that of the other, 4.2 in. Width of the lower jaw at the angles, 4 in. Proportion of the greatest breadth to the length (the latter taken as 100), 0.72. Proportion of the height to the length, 0.66. The above measurements were taken at the request of the late Dr. W. A. Greenhill of Hastings, who, at the time of his death in September, 1894, was engaged in preparing for the press a new edition of Sir Thomas Browne's *Urn Burial*. It was his wish "to make the account more complete by giving the measurements of that great man's skull." Is it not strange that one who meditated so deeply on the transitory duration of monuments and the great mutations of the world should have exemplified in his own relic his words to Thomas Le Gros? "But who knows the fate of his bones, or how often he is to be buried? Who hath the oracle of his ashes, or whither they are to be scattered?"



## APPENDIX No. III.

### ADDENDA ET CORRIGENDA IN C AND D.

<sup>1</sup> *Marginal Illustrations omitted, or to be added to the  
Discourses of URN-BURIAL, and of the  
GARDEN OF CYRUS.*

FIRST ED.    ED. C.

- |       |  |
|-------|--|
| P. 19 | P. 5, l. 29.— <i>O Absalom, Absalom, Absalom.</i> 2 Sam. 18.   |
| 22    | 9, l. 14.—Double Sepulture of <i>Abraham</i> . <i>Det mihi speluncam duplicem.</i> Gen. 23.  |
| 43    | 16, l. 14.— <i>Pyrrhus</i> his Toe which could not be burnt.<br>Lamp of <i>Galvanus</i> : to which refers the note out of <i>Licetus</i> in whom it is to be seen and described.   |
| 50    | 18, l. 37.— <i>Gariola</i> : that part in the Skeleton of an Horse, which is made by the hanch-bones.<br>Negro's skulls: for their extraordinary thickness.  |
| 59    | 21, l. 32.—Four or five dayes: at least by some difference from living Eyes.   |
| 61    | 22, l. 27.—Of the Masculine gender: in <i>Homer</i> , θυῆ Θεβαίου Τερεστιασ σκηπτρον ἔχων.   |
| 61    | 22, l. 30.—Eat Asphodels: in <i>Lucian</i> .   |
| 75    | 27, l. 6.—Of the Mummies which men show in several Countries, giving them what Names they please; and unto some the Names of the old Egyptian Kings out of <i>Herodotus</i> .  |
| 76-7  | 27, l. 39.—First storie before the flood.<br><i>Pagans</i> could doubt. <i>Euripides</i> .<br>Light in Ashes. According to the custome of the Jewes, who place a lighted wax-candle in a pot of ashes by the Corps. <i>Lea</i> . |

<sup>1</sup> This list of Marginal Illustrations is repeated in D, with the necessary correction of the pagination. The original spelling is retained here, and also in the Errata.

FIRST ED. ED. C.

- P. 81 P. 29, l. 11.—Wood, Pitch, a Mourner, and an Urne: according to the Epitaph of *Rufus* and *Beronica* in *Gruterus*,  
 —Nec ex  
 Eorum bonis plus inventum est, quam  
 Quod sufficeret ad emendam pyram  
 Et picem quibus corpora cremarentur,  
 Et præfita conducta et olla empta.
- 81 29, l. 13.—The Epitaph of *Gordianus* in Greek, Latine, Hebrew, Ægyptian, Arabick, defaced by *Licinius* the Emperour.
- 108 41, l. 35.—Medallions: the larger sort of Medals.
- 110 41, n.—*De armis scaccatis*, this refers to page 42. at Heralds.
- 109 42, l. 15.—*Reticulum jecoris*, in *Leviticus*.
- 112 43 n.—In *Eustathius* his Comment-upon *Homer*.
- 116 44, l. 34.—The like foundation: Obelisks being erected upon a square base.
- 123 45 (6), l. penult.—Fathers of their Mother, Ἐρδὼν ἐμῶν λαγόνων μητρός ἔχω πατέρα.
- 124 45 (7), l. 14.—Solitarie Magot: there being a single Maggot found almost in every head.
- 127 49, l. 16.—Upon Pollards: upon pollard Oaks and Thorns.
- 135 51, l. 10.—While the *Julus*: These and more to be found upon our Oaks; not well described by any till the Edition of *Theatrum Botanicum*.
- 139 52, l. 18.—Number of Swallows eggs, which exceed not five.
- 148 55, l. 21.—Handed crosses: *cruces ansatæ*, being held by a finger in the circle.
- 150 56, l. 4.—No less then four: μεγάλη κοιλία, κεκρύφαλος, ἑλίνος, ἥνυστρον. Arist. *magnus venter*, *Reticulum*, *omasus*, *abomasus*. Gaza.
- 155 57, l. 40.—The stalk: below.
- 157 58, l. 19.—The russet Neck: to be observed in white young Lambs, which afterward vanisheth.
- 187 68, l. 16.—*Decussavit eum*. ἐχίασεν αὐτὸν ἐν τῷ παντί.
- 190 69, l. 26.—In many, as Hens, Bitterns, and long claw'd Fowls.
- 192 70, l. 15.—Nectar of the fift Planet.  
*Oscula quæ Venus*  
*Quinta parte sui Nectaris imbuit.*

<sup>1</sup> ERRATA IN C.

FIRST ED. ED. C.

[P. xi.] P. ult. Epist. 2nd, l. 11, read *in flowers*.[Plate] in the figures of the Urnes a fullpoint at *onus*.

- P. 1 1, l. 4, read *Rake*.  
 2 1, l. 11, read *thousands of years*  
 5 2, l. 40, read *burned* [according to].  
 14 6, l. 6, read *In*.  
 16 6, l. penult. read *Prasutagus*.  
 17 7, l. 15, read *unknown*.  
 18 7, l. 31, dele *with*.  
 20 8, l. 22, read *have made*.  
 27 11, l. 2, read *Ausgarus*.  
 30 11, l. 36, read *great persons*.  
 32 12, l. 19, read *and*.  
 36 13, l. ult. read *Rust*.  
 43 16, read *Lamp. Galvanus*. a fullpoint. *Marlianus*.  
 48 18, l. 5, read *gnawd*.  
 61 22, l. 24, read *Plato*.  
 62 22, l. 36, read *well*.  
 65 23, l. 42, dele *and*.  
 70 25, l. 15, read *strouger*.  
 76 27, l. 29, after *time*, these words to come in, [*without the  
favour of the everlasting register.*]  
 78 28, read *νομή*.  
 81 29, l. 18, read *stage*.  
 83 29, l. ult. read *passed*.  
 94 37, l. 14, read *doubled*.  
 94 37, l. 14 (*n*), read *εὐγώνια*.  
 95 37, l. 19, read *Rectangular*.  
 98 38, l. 19, read *Tenuipha*.  
 100 39, l. 17, read *Sons*.  
 109 42, l. 5, read *Chapiters*.  
 112 43, l. 13, for *and* read *which*.

<sup>1</sup> This list of 'Errata' is not reprinted in D, and the Errata themselves are not corrected.

## FIRST ED.    ED. C.

- P. 115    P. 44, l. (14) read *nurses* (*Narses*?).  
 116        44, l. 24, read *first ranch*.  
 118        45, l. 18, read *Angles*.  
 119        45, l. 29, for *five* read *seven*.  
 122        46, l. 14, for *neck* read *head*.  
 123        46, l. 33, read *pinea*.  
 124        47, l. (11), read *Teazel*.  
 130        49, l. 21, *roots*, add *and sprouts*.  
 133        50, l. 15, read *powers*.  
 134        50, l. 25, dele *second and*.  
 135        51, l. 4, after *trees*, adde, [*in a large acception it compriseth all vegetables, for the frutex and suffrutex are under the progression of trees.*]  
 135        51, l. 11, read *pill*.  
 139        52, l. 16, read *closing*.  
 141        53, l. 6, read *fifth touch*.  
 142        53, l. 21, read *bramble*.  
 142        53, l. 27, [read] *Delphinium*.  
 145        54, l. 17, read *pliaut*.  
 154        57, l. (29), read *Aiatin*.  
 156        58, l. 10, read *stars*.  
 162        59, l. penult., read *generality*.  
 166        61, l. 13, read *pot*.  
 173        63, l. 32 and 33, read *four*, dele *in every one*.  
 174        64, l. 1, read *stand not*.  
 181        66, l. 21, read *Pluto*.  
 186        69, l. 12, read *which was*.

HYDRIOTAPHIA,  
URNE-BURIALL,

OR,  
A Discourse of the Sepulchrall  
Urnes lately found in  
N O R F O L K.

*Together with*  
The Garden of CYRUS,  
OR THE  
Quincunciall, Lozenge, or  
Net-work Plantations of the An-  
cients, Artificially, Naturally,  
Mystically Considered.  
With Sundry Observations.

---

By *Thomas Browne* D. of Physick.

---

L O N D O N,  
Printed for *Hen. Brome* at the Signe of the  
Gun in *Ivy-lane*. 1658.

1st Edition, 1658.

D. iii

TO MY

WORTHY AND HONOURED FRIEND

THOMAS LE GROS,

OF CROSTWICK, ESQUIRE.

WHEN the funeral pyre was out, and the last valediction over, men took a lasting adieu of their interred friends, little expecting the curiosity of future ages should comment upon their ashes; and, having no old experience of the duration of their reliicks, held no opinion of such after-considerations. The Epistle  
Dedicatory.

iv But who knows the fate of his bones, or how often he is to be buried? Who hath the oracle of his ashes, or whether they are to be scattered? The reliicks of many lie like the ruins of Pompeys<sup>1</sup>, in all parts of the earth; and when they arrive at your hands, these may seem to have wandered far, who, in a direct and meridian travel<sup>2</sup>, have but few miles of known earth between yourself and the pole.

<sup>1</sup> "Pompeios juvenes Asia atque Europa, sed ipsum Terra tegit Libyes."—[Martial, *Epigr.* v. 74.]

<sup>2</sup> Little directly but sea, between your house and Greenland.

The Epistle  
Dedicatory.

That the bones of Theseus should be seen again in Athens<sup>1</sup> was not beyond conjecture and hopeful expectation: but that these should arise so opportunely to serve yourself was an hit of fate, and honour beyond prediction.

We cannot but wish these urns might have the effect of theatrical vessels and great Hippodrome urns<sup>2</sup> in Rome, to resound the acclamations and honour due unto you. But these are sad and sepulchral pitchers, which have no joyful voices; silently expressing old mortality, the ruins of forgotten times, and can only speak with life, how long in this corruptible frame some parts may be uncorrupted; yet able to outlast bones long unborn, and noblest pile among us<sup>3</sup>.

We present not these as any strange sight or spectacle unknown to your eyes, who have beheld the best of urns and noblest variety of ashes; who are yourself no slender master of antiquities, and can daily command the view of so many imperial faces; which raiseth your thoughts unto old things and consideration of times before you, when even living men were antiquities; when the living might exceed the dead, and to depart this world could not be properly said to go unto the greater number<sup>4</sup>. And so run up your thoughts upon the Ancient

<sup>1</sup> Brought back by Cimon. Plutarch.—[*Vita Cim* § 8.]

<sup>2</sup> The great urns in the Hippodrome at Rome, conceived to resound the voices of people at their shows.

<sup>3</sup> Worthily possessed by that true gentleman, Sir Horatio Townshend, my honoured friend.

<sup>4</sup> "Abiit ad plures."

of Days, the antiquary's truest object, unto whom the eldest parcels are young, and earth itself an infant, and without Egyptian<sup>1</sup> account makes but small noise in thousands.

The Epistle  
Dedicatory.

We were hinted by the occasion, not caught the opportunity to write of old things, or intrude upon the antiquary. We are coldly drawn unto discourses of antiquities, who have scarce time before us to comprehend new things, or make out learned novelties. But seeing they arose, as they lay almost in silence among us, at least in short account suddenly passed over, we were very unwilling they should die again, and be buried twice among us.

vi Beside, to preserve the living, and make the dead to live, to keep men out of their urns, and discourse of human fragments in them, is not impertinent unto our profession; whose study is life and death, who daily behold examples of mortality, and of all men least need artificial *mementos*, or coffins by our bedside, to mind us of our graves.

'Tis time to observe occurrences, and let nothing remarkable escape us: the supinity of elder days hath left so much in silence, or time hath so martyred the records, that the most industrious heads<sup>2</sup> do find no easy work to erect a new *Britannia*.

'Tis opportune to look back upon old times,

<sup>1</sup> Which makes the world so many years old.

<sup>2</sup> Wherein Mr. Dugdale hath excellently well endeavoured, and worthy to be countenanced by ingenuous and noble persons.



The Epistle  
Dedicatory.

and contemplate our forefathers. Great examples grow thin, and to be fetched from the passed world. Simplicity flies away, and iniquity comes at long strides upon us. We have enough to do to make up ourselves from present and passed times, and the whole stage of things scarce serveth for our instruction. A complete piece of virtue must be made from the *centos* of all ages, as all the beauties of Greece could vi make but one handsome Venus.

When the bones of King Arthur were digged up<sup>1</sup>, the old race might think they beheld therein some originals of themselves; unto these of our urns none here can pretend relation, and can only beheld the relicks of those persons, who, in their life giving the laws unto their predecessors, after long obscurity, now lie at their mercies. But, remembering the early civility they brought upon these countries, and forgetting long-passed mischiefs, we mercifully preserve their bones, and defile not their ashes.

In the offer of these antiquities we drive not at ancient families, so long outlasted by them. We are far from erecting your worth upon the pillars of your forefathers, whose merits you illustrate. We honour your old virtues, conformable unto times before you, which are the noblest armoury. And, having long experience of your friendly conversation, void of empty formality, full of freedom, constant and generous viii

<sup>1</sup> In the time of Henry the second.—Camden [*Britannia; Somersetshire*, col 80, ed 1722].

honesty, I look upon you as a gem of the old rock<sup>1</sup>, and must profess myself even to urn and ashes,

The Epistle  
Dedicatory.

Your ever faithful Friend

and Servant,

THOMAS BROWNE.

NORWICH, *May* 1 [1658].

<sup>1</sup> "Adamas de rupe veteri præstantissimus."

# HYDRIOTAPHIA,

## URN-BURIAL.



### CHAPTER I.

<sup>1</sup> **I**N the deep discovery of the subterranean [1]  
world, a shallow part would satisfy some <sup>Shallowness</sup>  
enquirers; who, if two or three yards were open <sup>of graves</sup>  
about the surface, would not care to rake the  
bowels of Potosi<sup>1</sup>, and regions towards the  
<sup>2</sup> centre. Nature hath furnished one part of the  
earth, and man another. The treasures of time  
lie high, in urns, coins, and monuments, scarce  
below the roots of some vegetables. Time hath  
endless rarities, and shows of all varieties;  
which reveals old things in heaven, makes new  
discoveries in earth, and even earth itself a  
discovery. That great antiquity America lay  
buried for thousands of years, and a large part  
of the earth is still in the urn unto us.

Though, if Adam were made out of an extract [2]  
of the earth, all parts might challenge a resti-  
tution, yet few have returned their bones  
far lower than they might receive them; not

<sup>1</sup> The rich mountain of Peru.

CHAP. I. affecting the graves of giants, under hilly and heavy coverings, but content with less than their own depth, have wished their bones might lie soft, and the earth be light upon them. Even such as hope to rise again, would not be content with central interment, or so desperately to place their relicks as to lie beyond discovery, and in no way to be seen again; which happy contrivance hath made communication with our forefathers, and left unto our<sup>3</sup> view some parts, which they never beheld themselves.

[3] Though earth hath engrossed the name, yet water hath proved the smartest grave; which in forty days swallowed almost mankind, and the living creation; fishes not wholly escaping, except the salt ocean were handsomely contented by a mixture of the fresh element.

[4] Many have taken voluminous pains to determine the state of the soul upon disunion; but men have been most phantastical in the singular contrivances of their corporal dissolution: whilst the soberest nations have rested in two ways, of simple inhumation and burning.

Two modes  
of disposing  
of the dead.

Burial the  
older.

(Gen. xxiii.  
& xxv. 9, 10.)  
(Deut. xxxiv.  
5, 6).

[5] That carnal interment or burying was of the elder date, the old examples of Abraham and the patriarchs are sufficient to illustrate; and were without competition, if it could be made out that Adam was buried near Damascus, or Mount Calvary, according to some tradition. God himself, that buried but one, was pleased to make choice of this way, collectible from Scripture expression, and the hot contest be-

CHAP. I. the funeral fire with planed wood, or quenching the fire with wine), Manlius the consul burnt the body of his son: Numa, by special clause of his will, was not burnt but buried; and Remus was solemnly burnt, according to the description of Ovid<sup>1</sup>.

- [7] Cornelius Sylla was not the first whose body was burned in Rome, but of the Cornelian family; which, being indifferently, not frequently used before, from that time spread, and became the prevalent practice. Not totally pursued in the highest run of cremation; for when even crows were funerally burnt, Poppæa the wife of Nero found a peculiar grave interment. Now as all customs were founded upon some bottom of reason, so there wanted not grounds for this; according to several apprehensions of the most rational dissolution. Some being of the opinion<sup>6</sup> of Thales, that water was the original of all things, thought it most equal to submit unto the principle of putrefaction, and conclude in a moist relentment. Others conceived it most natural to end in fire, as due unto the master principle in the composition, according to the doctrine of Heraclitus; and therefore heaped up large piles, more actively to waft them toward that element, whereby they also declined a visible degeneration into worms, and left a lasting parcel of their composition.

Opinions of  
Thales and  
Heraclitus.

tom. 4. Item Vigeneri *Annotat in Livium*, et Alex. ab Alex [*Genial. Dies*], cum Tiraquello. Rosinus cum Dempstero.

<sup>1</sup> "Ultima prolato sublita flamma rogo"—*Fest.* lib. iv. l. 856, cum Car. Neapol. Anaptyxi.

Some apprehended a purifying virtue in fire, CHAP. I.  
refining the grosser commixture, and firing out [8]  
the æthereal particles so deeply immersed in it.  
And such as by tradition or rational conjecture  
held any hint of the final pyre of all things, or  
that this element at last must be too hard for all  
the rest, might conceive most naturally of the  
fiery dissolution. Others pretending no natural  
grounds, politickly declined the malice of ene-  
mies upon their buried bodies. Which con-  
sideration led Sylla unto this practice; who  
having thus served the body of Marius, could  
7 not but fear a retaliation upon his own; enter-  
tained after in the civil wars, and revengeful  
contentions of Rome.

But, as many nations embraced, and many [9]  
left it indifferent, so others too much affected, Practice of  
or strictly declined this practice. The Indian the Brah-  
Brachmans seemed too great friends unto fire, mins  
who burnt themselves alive, and thought it the  
noblest way to end their days in fire; according  
to the expression of the Indian, burning himself  
at Athens<sup>1</sup>, in his last words upon the pyre  
unto the amazed spectators, "Thus I make my-  
self immortal."

But the Chaldeans, the great idolaters of fire, [10]  
abhorred the burning of their carcasses, as a pol- Burning de-  
lution of that deity. The Persian magi declined clined by the  
it upon the like scruple, and being only solicitous Chaldeans  
about their bones, exposed their flesh to the and Persians.  
prey of birds and dogs. And the Parsees now

<sup>1</sup> And therefore the inscription of his tomb was made accord-  
ingly.—Nic. Damasc.

CHAP. I. in India, which expose their bodies unto vultures, and endure not so much as *feretra* or biers of wood, the proper fuel of fire, are led on with such niceties. But whether the ancient Germans, who burned their dead, held any such fear to pollute their deity of Herthus, or the <sup>8</sup> Earth, we have no authentic conjecture.

[11] The Egyptians were afraid of fire, not as a deity, but a devouring element, mercilessly consuming their bodies, and leaving too little of them; and therefore by precious embalmments, depositure in dry earths, or handsome inclosure in glasses, contrived the notablest ways of integral conservation. And from such Egyptian scruples, imbibed by Pythagoras, it may be conjectured that Numa and the Pythagorical sect first waved the fiery solution.

[12] The Scythians, who swore by wind and sword, that is, by life and death, were so far from burning their bodies, that they declined all interment, and made their graves in the air: and the Ichthyophagi, or fish-eating nations about Egypt, affected the sea for their grave; thereby declining visible corruption, and restoring the debt of their bodies. Whereas the old heroes, in Homer, dreaded nothing more than water or drowning; probably upon the old opinion of the fiery substance of the soul, only extinguishable by that element; and therefore the poet <sup>9</sup> emphatically implieth the total destruction in this kind of death, which happened to Ajax Oilcus <sup>1</sup>.

<sup>1</sup> Which Magius reads *ἐξάπολωλε*.

The old Balearians<sup>1</sup> had a peculiar mode, for they used great urns and much wood, but no fire in their burials, while they bruised the flesh and bones of the dead, crowded them into urns, and laid heaps of wood upon them. And the Chinese<sup>2</sup> without cremation or urnal interment of their bodies, make use of trees and much burning, while they plant a pine-tree by their grave, and burn great numbers of printed draughts of slaves and horses over it, civilly content with their companies *in effigy*, which barbarous nations exact unto reality. CHAP. I.  
[13]

Christians abhorred this way of obsequies, and though they sticked not to give their bodies to be burned in their lives, detested that mode after death; affecting rather a depositure than absumption, and properly submitting unto the sentence of God, to return not unto ashes but unto dust again, conformable unto the practice of the patriarchs, the interment of our Saviour, of Peter, Paul, and the ancient martyrs. And so far at last declining promiscuous interment with Pagans, that some have suffered ecclesiastical censures<sup>3</sup>, for making no scruple thereof. [14]  
Practice of  
the early  
Christians.

The Musselman believers will never admit this fiery resolution. For they hold a present trial from their black and white angels in the grave; which they must have made so hollow, that they may rise upon their knees.

The Jewish nation, though they entertained

<sup>1</sup> Diodorus Siculus [lib. v. c. 18].

<sup>2</sup> Ramusius in *Navigat.*

<sup>3</sup> Martialis the Bishop.—Cyprian [*Epist.* 67. § 6].



CHAP. I.  
Practice of  
the Jews.

the old way of inhumation, yet sometimes admitted this practice. For the men of Jabesh burnt the body of Saul; and by no prohibited practice, to avoid contagion or pollution, in time of pestilence, burnt the bodies of their friends<sup>1</sup>. And when they burnt not their dead bodies, yet sometimes used great burnings near and about them, deducible from the expressions concerning Jehoram, Zedechias, and the sumptuous pyre of Asa. And were so little averse from Pagan burning, that the Jews lamenting the death of Cæsar, their friend and revenger on Pompey, frequented the place where his body was burnt<sup>11</sup> for many nights together<sup>2</sup>. And as they raised noble monuments and mausoleums for their own nation<sup>3</sup>, so they were not scrupulous in erecting some for others, according to the practice of Daniel, who left that lasting sepulchral pile in Ecbatana, for the Median and Persian kings<sup>4</sup>.

[17] But even in times of subjection and hottest use, they conformed not unto the Roman practice of burning; whereby the prophecy was secured concerning the body of Christ, that it should not see corruption, or a bone should not be broken; which we believe was also providentially prevented, from the soldier's spear and nails that passed by the little bones both in his hands and feet; not of ordinary contrivance, that it should

<sup>1</sup> Amos vi. 10.

<sup>2</sup> Sueton. *Vita Jul. Cæs.* [c. 81].

<sup>3</sup> As that magnificent sepulchral monument erected by Simon, 1 Macc. xiii. [27, &c.].

<sup>4</sup> Κατασκευασμα θανασιως πεποιημένον, whereof a Jewish priest had always the custody, unto Josephus his days.—Jos. *Antiq.* lib. x. [c. 11. § 7].

not corrupt on the cross, according to the laws of Roman crucifixion ; or an hair of his head perish, though observable in Jewish customs, to cut the hairs of malefactors. CHAP. I.

Nor in their long cohabitation with Egyptians, [18] crept into a custom of their exact embalming, wherein deeply slashing the muscles, and taking  
 2 out the brains and entrails, they had broken the subject of so entire a resurrection, nor fully answered the types of Enoch, Elijah, or Jonah, which yet to prevent or restore, was of equal facility unto that rising power, able to break the fasciations and bands of death, to get clear out of the cerecloth, and an hundred pounds of ointment, and out of the sepulchre before the stone was rolled from it.

But though they embraced not this practice [19] of burning, yet entertained they many ceremonies agreeable unto Greek and Roman obsequies. And he that observeth their funeral feasts, their lamentations at the grave, their music, and weeping mourners ; how they closed the eyes of their friends, how they washed, anointed, and kissed the dead ; may easily conclude these were not mere Pagan civilities. But whether that mournful burthen, and treble calling out after Absalom<sup>1</sup>, had any reference unto the last conclamation, and triple valediction, used by other nations, we hold but a wavering conjecture.

3 Civilians make sepulture but of the law of [20] nations, others do naturally found it and dis- Sepulture of animals.

<sup>1</sup> "O Absalom, Absalom, Absalom !" — 2 Sam. xviii. 33.

CHAP. I. cover it also in animals. They that are so thick-skinned as still to credit the story of the *Phœnix*, may say something for animal burning. More serious conjectures find some examples of sepulture in elephants, cranes, the sepulchral cells of pismires, and practice of bees, — which civil society carrieth out their dead, and hath exequies, if not interments.

## CHAPTER II.

14 THE solemnities, ceremonies, rites of their [1] cremation or interment, so solemnly delivered by authors, we shall not disparage our reader to repeat. Only the last and lasting part in their urns, collected bones and ashes, we cannot wholly omit, or decline that subject, which occasion lately presented, in some discovered among us.

In a field of Old Walsingham, not many [2] months past, were dugged up between forty and fifty urns, deposited in a dry and sandy soil, not a yard deep, nor far from one another. Not all strictly of one figure, but most answering these described: some containing two pounds of bones, distinguishable in skulls, ribs, jaws, thigh bones, and teeth, with fresh impressions of their combustion; besides the extraneous substances, like pieces of small boxes, or combs handsomely wrought, handles of small brass instruments, brazen nippers, and in one some kind of opal<sup>1</sup>.

Urn found  
at Walsing-  
ham.

<sup>1</sup> In one sent me by my worthy friend, Dr. Thomas Witherley of Walsingham.

CHAP. II. Near the same plot of ground, for about six <sup>15</sup>

Account of  
*ustrina*.

[3] yards compass, were digged up coals and incinerated substances, which begat conjecture that this was the *ustrina* or place of burning their bodies, or some sacrificing place unto the *manes*, which was properly below the surface of the ground, as the *aræ* and altars unto the gods and heroes above it.

The urns  
probably  
Roman.

[4] That these were the urns of Romans from the common custom and place where they were found, is no obscure conjecture, not far from a Roman garrison, and but five miles from Brancaster, set down by ancient record under the name of Brannodunum. And where the adjoining town, containing seven parishes, in no very different sound, but Saxon termination, still retains the name of Burnham, which being an early station, it is not improbable the neighbour parts were filled with habitations, either of Romans themselves, or Britons Romanized, which observed the Roman customs.

Practices of  
the Romans.

[5] Nor is it improbable, that the Romans early possessed this country. For though we meet not with such strict particulars of these parts before the new institution of Constantine and military charge of the count of the Saxon shore, and that about the Saxon invasions, the Dalmatian horsemen were in the garrison of Brancaster; yet in the time of Claudius, Vespasian, and Severus, we find no less than three legions dispersed through the province of Britain. And as high as the reign of Claudius a great overthrow was given unto the Iceni, by the Roman

A D. 50.

## URN-BURIAL.

lieutenant Ostorius. Not long after, the country was so molested, that, in hope of a better state, Prasutagus bequeathed his kingdom unto Nero and his daughters; and Boadicea, his queen, fought the last decisive battle with Paulinus. After which time, and conquest of Agricola, the lieutenant of Vespasian, probable it is, they wholly possessed this country, ordering it into garrisons or habitations best suitable with their securities; and so some Roman habitations not improbable in these parts, as high as the time of Vespasian, where the Saxons after seated, in whose thin-filled maps we yet find the name of 7 Walsingham. Now if the Icenii were but Gamadims, Anconians, or men that lived in an angle, wedge, or elbow of Britain, according to the original etymology, this country will challenge the emphatical appellation, as most properly making the elbow or *iken* of Icenia. Conjectural etymology of Icenii.

That Britain was notably populous is undeniable, from that expression of *Cæsar*<sup>1</sup>. That the Romans themselves were early in no small numbers, seventy thousand, with their associates, slain by Boadicea, affords a sure account. And though not many Roman habitations are now known, yet some, by old works, rampiers, coins, and urns, do testify their possessions. Some urns have been found at Castor, some also about Southcreek, and, not many years past, no less than ten in a field at Buxton<sup>2</sup>, not near any Britain notably populous.  
Urns, coins, &c., found elsewhere.

<sup>1</sup> "Hominum infinita multitudo est, creberrimæque ædificia fere Gallicis consimilia."—*Cæs. De Bello Gal.* l. v. {c. 12.}

<sup>2</sup> In the ground of my worthy friend Robert Jegon, Esq.;

CHAP. II. recorded garrison. Nor is it strange to find Roman coins of copper and silver among us; of Vespasian, Trajan, Adrian, Commodus, Antoninus, Severus, &c.; but the greater number of Dioclesian, Constantine, Constans, Valens, with many of Victorinus, Posthumius, Tetricus, and the thirty tyrants in the reign of Gallienus; and some as high as Adrianus have been found 18 about Thetford, or Sitomagus, mentioned in the *Itinerary* of Antoninus, as the way from Venta or Castor unto London<sup>1</sup>. But the most frequent discovery is made at the two Castors by Norwich and Yarmouth<sup>2</sup>, at Burghcastle, and Brancaster<sup>3</sup>.

[7] Besides the Norman, Saxon, and Danish pieces of Cuthred, Canutus, William, Matilda<sup>4</sup>, and others, some British coins of gold have been dispersedly found, and no small number of silver pieces near Norwich<sup>5</sup>, with a rude head upon the obverse, and an ill-formed horse on the reverse, with inscriptions *Id. Duro. T.*;

Norman,  
Saxon, and  
Danish coins.

wherein some things contained were preserved by the most worthy Sir William Paston, Baronet

<sup>1</sup> From Castor to Thetford the Romans accounted thirty-two miles, and from thence observed not our common road to London, but passed by *Combretonium ad Ansam*, *Canonium*, *Casaromagus*, &c. by Bretenham, Coggeshall, Chelmsford, Burntwood, &c.

- Most at Castor by Yarmouth, found in a place called East-bloudyburgh Furlong, belonging to Mr. Thomas Wood, a person of civility, industry, and knowledge in this way, who hath made observation of remarkable things about him, and from whom we have received divers silver and copper coins

<sup>2</sup> Belonging to that noble gentleman, and true example of worth, Sir Ralph Hare, Baronet, my honoured friend

<sup>3</sup> A piece of Maud, the Empress, said to be found in Buckenham Castle, with this inscription,—“*Elle n'a elle.*”

<sup>4</sup> At Thorpe.

whether implying Icenî, Durotriges, Tascia, or Trinobantes, we leave to higher conjecture. CHAP. II.

Vulgar chronology will have Norwich Castle as  
 19 old as Julius Cæsar; but his distance from these parts, and its gothick form of structure, abridgeth such antiquity. The British coins afford conjecture of early habitation in these parts, though the city of Norwich arose from the ruins of Venta; and though, perhaps, not without some habitation before, was enlarged, builded, and nominated by the Saxons. In what bulk or populosity it stood in the old East-Angle monarchy tradition and history are silent. Considerable it was in the Danish eruptions, when Sueno burnt Thetford and Norwich<sup>1</sup>, and Ulfketel, the governor thereof, was able to make some resistance, and after endeavoured to burn the Danish navy.

How the Romans left so many coins in [8]  
 countries of their conquests seems of hard resolution; except we consider how they buried them under ground when, upon barbarous invasions, they were fain to desert their habitations in most part of their empire, and the strictness of their laws forbidding to transfer them to any other uses: wherein the Spartans<sup>2</sup> were singular, who, to make their copper money useless, con-  
 20 tempered it with vinegar. That the Britons left any, some wonder, since their money was iron and iron rings before Cæsar; and those of after-stamp by permission, and but small in

Ancient interment of coins.

<sup>1</sup> Brompton Abbas Jorvalensis.

<sup>2</sup> Plut. *Vita Lycurgi* [§ ix.].



CHAP. II. bulk and bigness. That so few of the Saxons remain, because, overcome by succeeding conquerors upon the place, their coins, by degrees, passed into other stamps and the marks of after-ages.

Antiquity of these relics uncertain. [9] Than the time of these urns deposited, or precise antiquity of these relicks, nothing of more uncertainty; for since the lieutenant of Claudius seems to have made the first progress

into these parts, since Boadicea was overthrown by the forces of Nero, and Agricola put a full end to these conquests, it is not probable the country was fully garrisoned or planted before; and, therefore, however these urns might be of later date, not likely of higher antiquity.

[10] And the succeeding emperors desisted not from their conquests in these and other parts, as testified by history and medal-inscription yet extant: the province of Britain, in so divided a distance from Rome, beholding the faces of many imperial persons, and in large account, <sup>21</sup> no fewer than Cæsar, Claudius, Britannicus, Vespasian, Titus, Adrian, Severus, Commodus, Geta, and Caracalla.

[11] A great obscurity herein, because no medal or emperor's coin enclosed, which might denote the date of their interments; observable in many urns, and found in those of Spitalfields, by London<sup>1</sup>, which contained the coins of Claudius, Vespasian, Commodus, Antoninus, attended with lacrymatories, lamps, bottles of liquor, and other appurtenances of affectionate

<sup>1</sup> Stowe's *Survey of London*.

superstition, which in these rural interments were wanting. CHAP. II.

Some uncertainty there is from the period [12] or term of burning, or the cessation of that practice. Macrobius affirmeth it was disused in his days; but most agree, though without authentic record, that it ceased with the Antonini,—most safely to be understood after the reign of those emperors which assumed the name of Antoninus, extending unto Heliogabalus. Not strictly after Marcus; for about fifty years later, we find the magnificent burning and con-  
 22 secration of Severus; and, if we so fix this period or cessation, these urns will challenge above thirteen hundred years.

But whether this practice was only then left [13] by emperors and great persons, or generally about Rome, and not in other provinces, we hold not authentic account; for after Tertulian, in the days of Minucius, it was obviously objected upon Christians, that they condemned the practice of burning<sup>1</sup>. And we find a passage in Sidonius<sup>2</sup>, which asserteth that practice in France unto a lower account. And, perhaps, not fully discussed till Christianity fully established, which gave the final extinction to these sepulchral bonfires.

Whether they were the bones of men, or [14] women, or children, no authentic decision from ancient custom in distinct places of burial.

<sup>1</sup> "Execrantur rogos, et damnant ignium sepulturam."—Min. *Oct.* [c. 11].

<sup>2</sup> Sidon. Apollinaris [lib. iii. ep. 5].

Cessation of  
the practice  
of burning  
the dead.

CHAP. II. Although not improbably conjectured, that the double sepulture or burying-place of Abraham<sup>1</sup>, had in it such intention. But from exility of bones, thinness of skulls, smallness of teeth, ribs, and thigh bones, not improbable that many thereof were persons of minor age, or women. Confirmable also from things contained in them. In most were found substances resembling combs, plates like boxes, fastened with iron pins, and handsomely overwrought like the necks or bridges of musical instruments; long brass plates overwrought like the handles of neat implements; brazen nippers, to pull away hair; and in one a kind of opal, yet maintaining a bluish colour.

Various  
things found  
in the urns.

- [15] Now that they accustomed to burn or bury with them, things wherein they excelled, delighted, or which were dear unto them, either as farewells unto all pleasure, or vain apprehension that they might use them in the other world, is testified by all antiquity, observable from the gent or beryl ring upon the finger of Cynthia, the mistress of Propertius, when after her funeral pyre her ghost appeared unto him; and notably illustrated from the contents of that Roman urn preserved by Cardinal Farnese<sup>2</sup>, wherein besides great number of gems with heads of gods and goddesses, were found an ape of agath, a grasshopper, an elephant of amber, a crystal ball, three glasses, two spoons, and six nuts of crystal; and beyond the content

<sup>1</sup> "Det mihi speluncam duplicem."—Gen. xxiii. [9].

<sup>2</sup> Vigneri *Aunot.* in 4 Lix.

of urns, in the monument of Childerick the First<sup>1</sup>, and fourth king from Pharamond, casually discovered three years past at Tournay, restoring unto the world much gold richly adorning his sword, two hundred rubies, many hundred imperial coins, three hundred golden bees, the bones and horse-shoes of his horse interred with him, according to the barbarous magnificence of those days in their sepulchral obsequies. Although, if we steer by the conjecture of many and Septuagint expression, some trace thereof may be found even with the ancient Hebrews, not only from the sepulchral treasure of David, but the circumcision knives which Joshua also buried. CHAP. II.

Some men, considering the contents of these [16] urns, lasting pieces and toys included in them, and the custom of burning with many other nations, might somewhat doubt whether all urns found among us, were properly Roman relicks, or some not belonging unto our British, Saxon, or Danish forefathers.

25 In the form of burial among the ancient [17] Britons, the large discourses of Cæsar, Tacitus, and Strabo are silent. For the discovery whereof, with other particulars, we much deplore the loss of that letter which Cicero expected or received from his brother Quintus, as a resolution of British customs; or the account which might have been made by Scribonius Largus, the physician, accompanying the Emperor Claudius, who might have also

Form of  
burial among  
the Ancient  
Britons.

<sup>1</sup> Chifflet, in *Anast. Childer.*

CHAP. II. discovered that frugal bit of the old Britons<sup>1</sup>, which in the bigness of a bean could satisfy their thirst and hunger.

[18] But that the Druids and ruling priests used to burn and bury, is expressed by Pomponius; that Bellinus, the brother of Brennus, and king of Britons, was burnt, is acknowledged by Polydorus, as also by Amandus Zierexensis in *Historia*, and Pineda in his *Universa Historia* (Spanish). That they held that practice in Gallia, Cæsar expressly delivereth. Whether the Britons (probably descended from them, of like religion, language, and manners) did not sometimes make use of burning, or whether at least such as were after civilized unto the Roman life and manners, conformed not unto this practice, we have no historical assertion or denial. But since, from the account of Tacitus, the Romans early wrought so much civility upon the British stock, that they brought them to build temples, to wear the gown, and study the Roman laws and language, that they conformed also unto their religious rites and customs in burials, seems no improbable conjecture.

[19] That burning the dead was used in Sarmatia is affirmed by Gaguinus; that the Sueons and Gothlanders used to burn their princes and great persons, is delivered by Saxo and Olaus; that this was the old German practice, is also asserted by Tacitus. And though we are bare in historical particulars of such obsequies in this island, or that the Saxons, Jutes, and Angles

<sup>1</sup> *Dionis excerpta per Xiphilin.* in Severo [lxxvi. 12].

burnt their dead, yet came they from parts where CHAP. II.  
'twas of ancient practice; the Germans using it,  
from whom they were descended. And even in  
Jutland and Sleswick in Anglia Cymbrica, urns  
with bones were found not many years before us<sup>1</sup>.

- <sup>27</sup> But the Danish and northern nations have [20]  
raised an era or point of compute from their  
custom of burning their dead<sup>2</sup>: some deriving Customs of  
the northern  
nations  
it from Unguinus, some from Frotho the Great,  
who ordained by law, that princes and chief  
commanders should be committed unto the fire,  
though the common sort had the common grave  
interment. So Starkatterus, that old hero, was  
burnt, and Ringo royally burnt the body of  
Harold the king slain by him.

- What time this custom generally expired in [21]  
that nation, we discern no assured period;  
whether it ceased before Christianity, or upon  
their conversion, by Ansgarius the Gaul, in the  
time of Ludovicus Pius the son of Charles the  
Great, according to good computes; or whether  
it might not be used by some persons, while  
for an hundred and eighty years Paganism  
and Christianity were promiscuously embraced  
among them, there is no assured conclusion.  
About which times the Danes were busy in  
England, and particularly infested this country;  
where many castles and strongholds were built  
by them, or against them, and great number of  
names and families still derived from them.
- <sup>28</sup> But since this custom was probably disused be-  
fore their invasion or conquest, and the Romans

<sup>1</sup> Roisold.

<sup>2</sup> Brendetyde. Ild tyde.

CHAP. II. confessedly practised the same since their possession of this island, the most assured account will fall upon the Romans, or Britons Romanized.

[22] However, certain it is, that urns conceived of no Roman original, are often digged up both in Norway and Denmark, handsomely described, and graphically represented by the learned physician Wormius<sup>1</sup>. And in some parts of Denmark in no ordinary number, as stands delivered by authors exactly describing those countries<sup>2</sup>. And they contained not only bones, but many other substances in them, as knives, pieces of iron, brass, and wood, and one of Norway a brass gilded jew's-harp.

Rollrich  
stones, and  
similar  
stones in  
Norway and  
Denmark.

[23] Nor were they confused or careless in disposing the noblest sort, while they placed large stones in circle about the urns or bodies which they interred; somewhat answerable unto the monument of Rollrich stones in England<sup>3</sup>, or sepulchral monument probably erected by Rollo, who after conquered Normandy; where 'tis not improbable somewhat might be discovered. Meanwhile to what nation or person belonged that large urn found at Ashbury<sup>4</sup>, containing mighty bones, and a buckler; what those large urns found at Little Massingham<sup>5</sup>; or why the Anglesea urns are placed with their mouths downward, remains yet undiscovered.

<sup>1</sup> Olai Wormii, *Monumenta et Antiquitat. Dan.*

<sup>2</sup> Adolphus Cyprius, *Annal. Sleswick.*, "urnis adeo abundabat collis," &c.

<sup>3</sup> In Oxfordshire.—Camden [*Britann.* col. 201 sq.].

<sup>4</sup> In Cheshire, Twinnus, *De rebus Albioniciis* (lib. ii p. 153).

<sup>5</sup> In Norfolk, Hollingshead.

### CHAPTER III.

30 PLAISTERED and whited sepulchres were [1]  
 anciently affected in cadaverous and corrupted burials; and the rigid Jews were wont to garnish the sepulchres of the righteous<sup>1</sup>. Ulysses, in Hecuba, cared not how meanly he lived, so he might find a noble tomb after death<sup>2</sup>. Great persons affected great monuments; and the fair and larger urns contained no vulgar ashes, which makes that disparity in those which time discovereth among us. The present urns were not of one capacity, the largest containing above a gallon, some not much above half that measure; nor all of one figure, wherein there is no strict conformity in the same or different countries; observable from those represented by Casalius, Bosio, and others, though all found in Italy; while many have handles, ears, and long necks, but most imitate a circular figure, in a spherical and round composition; whether from any mystery, best duration or capacity, were but a conjecture. But the

Sepulchres  
of the Jews.

Description  
of sepulchral  
urns, and  
their covering.

<sup>1</sup> Matt. xxiii. [29].

<sup>2</sup> Euripides [*Hec.* v. 317].



CHAP. III. common form with necks was a proper figure, making our last bed like our first; nor much unlike the urns of our nativity while we lay in the nether part of the earth<sup>1</sup>, and inward vault of our microcosm. Many urns are red, these but of a black colour, somewhat smooth, and dully sounding, which begat some doubt, whether they were burnt, or only baked in oven or sun, according to the ancient way, in many bricks, tiles, pots, and testaceous works; and, as the word *testa* is properly to be taken, when occurring without addition and chiefly intended by Pliny, when he commendeth bricks and tiles of two years old, and to make them in the spring. Nor only these concealed pieces, but the open magnificence of antiquity, ran much in the artifice of clay. Heretofore the house of Mausolus was built, thus old Jupiter stood in the Capitol, and the *statua* of Hercules, made in the reign of Tarquinius Priscus, was extant in Pliny's days. And such as declined burning or <sup>32</sup> funeral urns, affected coffins of clay, according to the mode of Pythagoras, and way preferred by Varro. But the spirit of great ones was above these circumscriptions, affecting copper, silver, gold, and porphyry urns, wherein Severus lay, after a serious view and sentence on that which should contain him<sup>2</sup>. Some of these urns were thought to have been silvered over, from sparklings in several pots, with small

<sup>1</sup> Psal. lxi. [9].

<sup>2</sup> Χαλκήσεως τῶν ἀνθρώπων, ὅτι ἡ δίκονμένη οὐκ ἐχώρησεν. Dion. [lib. lxxvi. ; Severus § 15].

## URN-BURIAL.

tinsel parcels; uncertain whether from the earth, or the first mixture in them.

Among these urns we could obtain ~~no~~ good account of their coverings; only one seemed arched over with some kind of brick-work. Of those found at Buxton, some were covered with flints, some, in other parts, with tiles; those at Yarmouth Caster were closed with Roman bricks, and some have proper earthen covers adapted and fitted to them. But in the Hom<sup>erical</sup> urn of Patroclus, whatever was the solid tegument, we find the immediate covering  
33 to be a purple piece of silk: and such as had no covers might have the earth closely pressed into them, after which disposure were probably some of these, wherein we found the bones and ashes half mortared unto the sand and sides of the urn, and some long roots of quich, or dog's-grass, wreathed about the bones.

No lamps, included liquors, lacrymatories, or [3] tear bottles, attended these rural urns, either as sacred unto the *manes*, or passionate expressions of their surviving friends. While with rich flames, and hired tears, they solemnized their obsequies, and in the most lamented monuments made one part of their inscriptions<sup>1</sup>. Some find sepulchral vessels containing liquors, which time hath incrassated into jellies. For, besides these lacrymatories, notable lamps, with vessels of oils, and aromatical liquors, attended noble ossuaries; and some yet retaining a vinosity<sup>2</sup> and spirit in them, which, if any have

Hom<sup>erical</sup>  
urn of  
Patroclus.

What was  
found in the  
urns.

<sup>1</sup> "Cum lacrymis posuere."

<sup>2</sup> Lazius.

CHAP. III. tasted, they have far exceeded the palates of antiquity. Liquors not to be computed by years of annual magistrates, but by great conjunctions and the fatal periods of kingdoms<sup>1</sup>. The draughts of consulary date were but crude unto these, and Opimian wine<sup>2</sup> but in the must unto them.

[4] In sundry graves and sepulchres we meet with rings, coins, and chalices. Ancient frugality was so severe, that they allowed no gold to attend the corpse, but only that which served to fasten their teeth<sup>3</sup>. Whether the Opaline stone in this were burnt upon the finger of the dead, or cast into the fire by some affectionate friend, it will consist with either custom. But other incinerable substances were found so fresh, that they could feel no singe from fire. These, upon view, were judged to be wood; but, sinking in water, and tried by the fire, we found them to be bone or ivory. In their hardness and yellow colour they most resembled box, which, in old expressions, found the epithet of eternal<sup>4</sup>, and perhaps in such conservatories might have passed uncorrupted.

[5] That bay leaves were found green in the tomb of S. Humbert<sup>5</sup>, after an hundred and

<sup>1</sup> About five hundred years.—Plato.

<sup>2</sup> "Vinum Opimianum annorum centum,"—Petron. [*Satyr.* c. 34].

<sup>3</sup> *XII. Tabul.* l. xi. *De Jure Sacro.* "Neve aurum addito quoque auro dentes vineti escunt, aut cum illo sepelire urere, se fraude esto."

<sup>4</sup> Plin. l. xvi. [c. 78?] "Inter ξύλα ἀσφαή numerat Theophrastus."

<sup>5</sup> Surius.

fifty years, was looked upon as miraculous. CHAP. III.  
 35 Remarkable it was unto old spectators, that the cypress of the temple of Diana lasted so many hundred years. The wood of the ark, and olive-rod of Aaron, were older at the captivity; but the cypress of the ark of Noah was the greatest vegetable of antiquity, if Josephus were not deceived by some fragments of it in his days: to omit the moor logs and fir trees found under-ground in many parts of England; the undated ruins of winds, floods, or earthquakes, and which in Flanders still show from what quarter they fell, as generally lying in a north-east position<sup>1</sup>.

But though we found not these pieces to be [6] wood, according to first apprehensions, yet we missed not altogether of some woody substance; for the bones were not so clearly picked but some coals were found amongst them; a way to make wood perpetual, and a fit associate for metal, whereon was laid the foundation of the great Ephesian temple, and which were made the lasting tests of old boundaries and land-  
 36 marks. Whilst we look on these, we admire not observations of coals found fresh after four hundred years<sup>2</sup>. In a long-deserted habitation<sup>3</sup> even egg-shells have been found fresh, not tending to corruption.

In the monument of King Childerick the iron [7] relicks were found all rusty and crumbling into pieces; but our little iron pins, which fastened  
 Tomb of King Childerick.

<sup>1</sup> Gorop. Becanus *in Niloscopia*.

<sup>2</sup> Of *Beringuccio nella pyrotechnia*. <sup>3</sup> At Elmeham.

CHAP. III. the ivory works, held well together, and lost not their magnetical quality, though wanting a tenacious moisture for the firmer union of parts ; although it be hardly drawn into fusion, yet that metal soon submitteth unto rust and dissolution. In the brazen pieces we admired not the duration, but the freedom from rust, and ill savour, upon the hardest attrition ; but now exposed unto the piercing atoms of air, in the space of a few months, they begin to spot and betray their green entrails. We conceive not these urns to have descended thus naked as they appear, or to have entered their graves without the old habit of flowers. The urn of Philopœmen was so laden with flowers and ribbons, that it afforded no sight of itself. The rigid Lycurgus allowed olive and myrtle. The Athenians might fairly except against the practice of Democritus, to be buried up in honey, as fearing to embezzle a great commodity of their country, and the best of that kind in Europe. But Plato seemed too frugally politick, who allowed no larger monument than would contain four heroick verses, and designed the most barren ground for sepulture : though we cannot commend the goodness of that sepulchral ground which was set at no higher rate than the mean salary of Judas. Though the earth had confounded the ashes of these ossuaries, yet the bones were so smartly burnt, that some thin plates of brass were found half melted among them. Whereby we apprehend they were not of the meanest carcases, perfunctorily

Ancient customs as to mementos and inscriptions.

(St Matt. xxviii. 3-10.)

fired, as sometimes in military, and commonly in pestilence, burnings; or after the manner of abject corpses, huddled forth and carelessly burnt, without the Esquiline Port at Rome; which was an affront continued upon Tiberius, 38 while they but half burnt his body<sup>1</sup>, and in the amphitheatre, according to the custom in notable malefactors; whereas Nero seemed not so much to fear his death as that his head should be cut off and his body not burnt entire.

Some, finding many fragments of skulls in [8] these urns, suspected a mixture of bones; in none we searched was there cause of such conjecture, though sometimes they declined not that practice.—The ashes of Domitian<sup>2</sup> were mingled with those of Julia; of Achilles with those of Patroclus. All urns contained not single ashes; without confused burnings they affectionately compounded their bones; passionately endeavouring to continue their living unions. And when distance of death denied such conjunctions, unsatisfied affections conceived some satisfaction to be neighbours in the grave, to lie urn by urn, and touch but in their names. And many were so curious to continue their living relations, that they contrived large and family urns, wherein the ashes of their nearest friends and kindred might successively be received<sup>3</sup>, at least some parcels

As to keeping ashes distinct.

<sup>1</sup> Sueton. *Vita Tib.* [c. lxxv]. "Et in amphitheatro semiustulandum," not. Casaub.

<sup>2</sup> Sueton. *Vita Domitian.* [c. xviii].

<sup>3</sup> See the most learned and worthy Mr. M. Casaubon upon Antoninus.

CHAP. III. thereof, while their collateral memorials lay in minor vessels about them.

[9] Antiquity held too light thoughts from objects 39

Disregard of  
human life  
among the  
ancients,

of mortality, while some drew provocatives of mirth from anatomies<sup>1</sup>, and jugglers showed tricks with skeletons; when fiddlers made not so pleasant mirth as fencers, and men could sit with quiet stomachs, while hanging was played before them<sup>2</sup>. Old considerations made few mementos by skulls and bones upon their monuments. In the Egyptian obelisks and hieroglyphical figures it is not easy to meet with bones. The sepulchral lamps speak nothing less than sepulture, and in their literal draughts prove often obscene and antick pieces. Where we find *D. M.*<sup>3</sup> it is obvious to meet with sacrificing *pateras* and vessels of libation upon old sepulchral monuments. In the Jewish hypogæum<sup>4</sup> and subterranean cell at Rome, was little observable beside the variety of lamps and frequent draughts of the holy candlestick. In authentick draughts of Anthony and Jerome we meet with thigh bones and death's-heads; but the cemeterial cells of ancient Christians<sup>40</sup> and martyrs were filled with draughts of Scripture stories; not declining the flourishes of cypress, palms, and olive, and the mystical

Jewish Hypo-  
gæum at  
Rome.

<sup>1</sup> "Sic erinus cuncti," &c. "Ergo dum vivimus vivamus"

<sup>2</sup> Ἀγέλας παίζων. A barbarous pastime at feasts [among the Thracians] when men stood upon a rolling globe, with their necks in a rope, and a knife in their hands, ready to cut it when the stone was rolled away; wherein if they failed, they lost their lives, to the laughter of their spectators — Athenæus [iv. 42, p. 155].

<sup>3</sup> "Dus inambus."

<sup>4</sup> *Ros'o.*

figures of peacocks, doves, and cocks; but iterately affecting the portraits of Enoch, Lazarus, Jonas, and the vision of Ezekiel, as hopeful draughts, and hinting imagery of the resurrection, which is the life of the grave, and sweetens our habitations in the land of moles and pismires.

Gentile inscriptions precisely delivered the extent of men's lives, seldom the manner of their deaths, which history itself so often leaves obscure in the records of memorable persons. There is scarce any philosopher but dies twice or thrice in Laërtius; nor almost any life without two or three deaths in Plutarch; which makes the tragical ends of noble persons more favourably resented by compassionate readers who find some relief in the election of such differences.

The certainty of death is attended with un-  
 41 certainties, in time, manner, places. The variety of monuments hath often obscured true graves; and cenotaphs confounded sepulchres. For beside their real tombs, many have found honorary and empty sepulchres. The variety of Homer's monuments made him of various countries. Euripides<sup>1</sup> had his tomb in [Attica], but his sepulture in Macedonia. And Severus<sup>2</sup> found his real sepulchre in Rome, but his empty grave in Gallia.

Cenotaph of Euripides.

He that lay in a golden urn<sup>3</sup> eminently above [12]

<sup>1</sup> Pausan. *in Atticis* [i. 21].

<sup>2</sup> Lamprid. *Vit. Alexand. Severi*.

<sup>3</sup> Trajanus.—Dion. [lix].



CHAP. III. the earth, was not like to find the quiet of his bones. Many of these urns were broke by a vulgar discoverer in hope of enclosed treasure. The ashes of Marcellus<sup>1</sup> were lost above ground, upon the like account. Where profit hath prompted, no age hath wanted such miners; for which the most barbarous expilators found the most civil rhetorick :—"Gold once out of the earth is no more due unto it ;—what was unreasonably committed to the ground, is reasonably resumed from it ;—let monuments and rich fabricks, not riches, adorn men's ashes ;—the commerce of the living is not to be transferred unto the dead ;—it is not injustice to take that <sup>42</sup> which none complains to lose, and no man is wronged where no man is possessor."

- [13] What virtue yet sleeps in this *terra damnata* and aged cinders, were petty magic to experiment. These crumbling relicks and long fired particles superannuate such expectations; bones, hairs, nails, and teeth of the dead, were the treasures of old sorcerers. In vain we revive such practices; present superstition too visibly perpetuates the folly of our forefathers, wherein unto old observation<sup>2</sup> this island was so complete, that it might have instructed Persia.

- [14] Plato's historian of the other world lies twelve days incorrupted, while his soul was viewing the large stations of the dead. How to keep the

Preservation  
of corpses.

<sup>1</sup> Plut. *Vita Marcelli*. The commission of the Gothish King Theodoric for finding out sepulchral treasure.—Cassiodor. *var.* I. 4.

<sup>2</sup> "Britannia hodieque eam attonite celebrat tantis ceremoniis, ut dedisse Persis videri possit."—Plin. l. *xxi.* [c. 4].

corpse seven days from corruption by anointing and washing, without exenteration, were an hazardable piece of art, in our choicest practice. How they made distinct separation of bones and ashes from fiery admixture, hath found no historical solution; though they  
 43 seemed to make a distinct collection, and overlooked not Pyrrhus his toe<sup>1</sup>. Some provision they might make by fictile vessels, coverings, tiles, or flat stones, upon and about the body (and in the same field, not far from these urns, many stones were found under ground), as also by careful separation of extraneous matter, composing and raking up the burnt bones with forks, observable in that notable lamp of Galvanus<sup>2</sup>. Marlianus, who had the sight of the *vas ustrinum*<sup>3</sup> or vessel wherein they burnt the dead, found in the Esquiline field at Rome, might have afforded clearer solution. But their insatisfaction herein begat that remarkable invention in the funeral pyres of some princes, by incombustible sheets made with a texture of asbestos, incremable flax, or salamander's wool, which preserved their bones and ashes incom-  
 mixed. Salamander's wool.

How the bulk of a man should sink into so [15] few pounds of bones and ashes, may seem strange unto any who considers not its consti-

<sup>1</sup> Which could not be burnt.

<sup>2</sup> To be seen in Licet. *De Reconditis Veterum Lucernis* (p. 599).

<sup>3</sup> *Topographia Romæ* ex Marliano. "Erat et vas ustrinum appellatum, quod in eo cadavera comburerentur." Cap. de *Campo Esquilino*.

CHAP. III. tution, and how slender a mass will remain upon an open and urging fire of the carnal composition. Even bones themselves, reduced 44 into ashes, do abate a notable proportion. And consisting much of a volatile salt, when that is fired out, make a light kind of cinders. Although their bulk be disproportionable to their weight, when the heavy principle of salt is fired out, and the earth almost only remaineth; observable in sawdust, which makes more ashes than oak, and discovers the common fraud of selling ashes by measure, and not by ponderation.

[16] Some bones make best skeletons<sup>1</sup>, some bodies quick and speediest ashes. Who would expect a quick flame from hydropical Heraclitus? The poisoned soldier when his belly brake, put out two pyres in Plutarch<sup>2</sup>. But in the plague of Athens<sup>3</sup>, one private pyre served two or three intruders; and the Saracens burnt in large heaps, by the king of Castile<sup>4</sup>, showed how little fuel sufficeth. Though the funeral pyre of Patroclus took up an hundred foot<sup>5</sup>, a piece of an old boat burnt Pompey; and if the burthen of Isaac were sufficient for an holocaust, a man may carry his own pyre.

[17] From animals are drawn good burning lights, 45 and good medicines against burning<sup>6</sup>. Though the seminal humour seems of a contrary nature

<sup>1</sup> Old bones according to Lyserus. Those of young persons not tall nor fat according to Columbus.

<sup>2</sup> *Vita Græc* [c. 13].

<sup>3</sup> Thucydides [ii. 52].

<sup>4</sup> Laurent. Valla.

<sup>5</sup> Ἐκατόμπεδος ἔρθα καὶ ἔρθα.—[Homer, *Il.* xxii. 164.]

<sup>6</sup> *Speran. Alb. Ovor.*

Effect of fire  
on various  
bodies.

Plutarch,  
*Pomp.* c. 80.

to fire, yet the body completed proves a combustible lump, wherein fire finds flame even from bones, and some fuel almost from all parts; though the metropolis of humidity<sup>1</sup> seems least disposed unto it, which might render the skulls of these urns less burned than other bones. But all flies or sinks before fire almost in all bodies: when the common ligament is dissolved, the attenuable parts ascend, the rest subside in coal, calx, or ashes.

CHAP. III.

The body a combustible lump.

To burn the bones of the king of Edom for [18] lime<sup>2</sup>, seems no irrational ferity; but to drink of the ashes of dead relations<sup>3</sup>, a passionate prodigality. He that hath the ashes of his friend, hath an everlasting treasure; where fire taketh leave, corruption slowly enters. In bones well burnt, fire makes a wall against itself; experimented in cupels, and tests of metals, which consist of such ingredients. What the sun compoundeth, fire analyseth, not transmuteth. That devouring agent leaves almost always a morsel for the earth, whereof all things are but a colony; and which, if time permits, the mother element will have in their primitive mass again.

He that looks for urns and old sepulchral [19] relicks, must not seek them in the ruins of temples, where no religion anciently placed them. These were found in a field, according to ancient custom, in noble or private burial;

Places of burial

<sup>1</sup> The brain. Hippocrates [*De Carn.* § 4. tom. i. p. 427, ed. Kühn].

<sup>2</sup> Amos ii. 1.

<sup>3</sup> As Artemisia of Mausolus.

CHAP. III. the old practice of the Canaanites, the family of Abraham, and the burying-place of Joshua, in the borders of his possessions; and also agreeable unto Roman practice to bury by highways, whereby their monuments were under eye;—memorials of themselves, and mementos of mortality unto living passengers; whom the epitaphs of great ones were fain to beg to stay and look upon them,—a language though sometimes used, not so proper in church inscriptions<sup>1</sup>. The sensible rhetorick of the dead, to exemplarity of good life, first admitted the bones of pious men and martyrs within church walls, which in succeeding ages erept into promiseuous 47 practice: while Constantine was peculiarly favoured to be admitted into the church porch, and the first thus buried in England, was in the days of Cuthred.

Burying by  
high-ways.

Postures  
observed.

[20] Christians dispute how their bodies should lie in the grave. In urnal interment they clearly escaped this controversy. Though we decline the religious consideration, yet in cemeterial and narrower burying-places, to avoid confusion and cross-position, a certain posture were to be admitted: which even Pagan civility observed<sup>2</sup>. The Persians lay north and south; the Megarians and Phœnicians placed their heads to the east; the Athenians, some think, towards the west, which Christians still retain. And Beda will have it to be the posture of our Saviour. That he was crucified with his face toward the west, we will not contend with

Phœnician  
and Mega-  
rian practice.

<sup>1</sup> "Siste viator."

<sup>2</sup> Kirchmannus *De Funer.*

tradition and probable account; but we applaud CHAP. III.  
not the hand of the painter, in exalting his cross  
so high above those on either side: since hereof  
we find no authentic account in history, and  
even the crosses found by Helena, pretend no  
such distinction from longitude or dimension.

48 To be gnawed out of our graves, to have our [21]  
skulls made drinking-bowls, and our bones  
turned into pipes, to delight and sport our  
enemies, are tragical abominations escaped in  
burning burials.

Urnal interments and burnt relicks lie not in [22]  
fear of worms, or to be an heritage for serpents.

In carnal sepulture, corruptions seem peculiar  
unto parts; and some speak of snakes out of  
the spinal marrow. But while we suppose  
common worms in graves, 'tis not easy to find  
any there; few in churchyards above a foot  
deep, fewer or none in churches though in fresh-  
decayed bodies. Teeth, bones, and hair, give  
the most lasting defiance to corruption. In an  
hydropical body, ten years buried in the church-  
yard, we met with a fat concretion, where the  
nitre of the earth, and the salt and lixivious  
liquor of the body, had coagulated large lumps  
of fat into the consistence of the hardest Castile  
soap, whereof part remaineth with us. After

Incorrupti-  
bility of  
human hair

49 a battle with the Persians, the Roman corpses  
decayed in few days, while the Persian bodies  
remained dry and uncorrupted. Bodies in the  
same ground do not uniformly dissolve, nor  
bones equally moulder; whereof in the oppro-  
brious disease, we expect no long duration.

Substance  
like Castile  
soap found in  
an hydropi-  
cal subject.

Persian and  
Roman  
corpses.

Durability of  
the body  
when buried.

CHAP. III. The body of the Marquis of Dorset seemed sound and handsomely cereclothed, that after seventy-eight years was found uncorrupted<sup>1</sup>. Common tombs preserve not beyond powder: a firmer consistence and compage of parts might be expected from arefaction, deep burial, or charcoal. The greatest antiquities of mortal bodies may remain in putrefied bones, whereof, though we take not in the pillar of Lot's wife, or metamorphosis of Ortelius<sup>2</sup>, some may be older than pyramids, in the putrefied relicks of the general inundation. When Alexander opened the tomb of Cyrus, the remaining bones discovered his proportion, whereof urnal fragments afford but a bad conjecture, and have this disadvantage of grave interments, that they leave us ignorant of most personal discoveries. For since bones afford not only rectitude and stability but figure unto the body, it is no impossible physiognomy to conjecture at fleshy appendencies, and after what shape the muscles and carnous parts might hang in their full consistencies. A full-spread *cariola*<sup>3</sup> shows a well-shaped horse behind; handsome formed skulls give some analogy to fleshy resemblance. A critical view of bones makes a good distinction

Phrenological conjecture.

Disquisition on skulls.

<sup>1</sup> Of Thomas, Marquis of Dorset, whose body being buried 1530, was 1608, upon the cutting open of the cerecloth, found perfect and nothing corrupted, the flesh not hardened, but in colour, proportion, and softness like an ordinary corpse newly to be interred.—Button's *Descript. of Leicestershire* [under the parish of *Bradgate*].

<sup>2</sup> In his map of Russia.

<sup>3</sup> That part in the skeleton of an horse, which is made by the haunch-bones

of sexes. Even colour is not beyond conjecture, CHAP. III.  
 since it is hard to be deceived in the distinction  
 of Negroes' skulls<sup>1</sup>. Dante's<sup>2</sup> characters are  
 to be found in skulls as well as faces. Hercules  
 is not only known by his foot. Other parts  
 make out their proportions and inferences  
 upon whole or parts. And since the dimen-  
 51 sions of the head measure the whole body, and  
 the figure thereof gives conjecture of the prin-  
 cipal faculties, physiognomy outlives ourselves,  
 and ends not in our graves.

Severe contemplators, observing these lasting [23]  
 relicks, may think them good monuments of  
 persons past, little advantage to future beings;  
 and, considering that power which subdueth all  
 things unto itself, that can resume the scattered  
 atoms, or identify out of any thing, conceive it  
 superfluous to expect a resurrection out of  
 relicks: but the soul subsisting, other matter,  
 clothed with due accidents, may salve the in-  
 dividuality. Yet the saints, we observe, arose  
 from graves and monuments about the holy  
 city. Some think the ancient patriarchs so  
 earnestly desired to lay their bones in Canaan,  
 as hoping to make a part of that resurrection;

Tombs of the  
Patriarchs.

<sup>1</sup> For their extraordinary thickness.

<sup>2</sup> The poet Dante, in his view of Purgatory, found gluttns  
 so meagre, and extenuated, that he conceited them to have  
 been in the siege of Jerusalem, and that it was easy to have  
 discovered *Homo* or *Omo* in their faces: M being made by the  
 two lines of their cheeks, arching over the eye-brows to the  
 nose, and their sunk eyes making O O which makes up *Omo*.

"Parèn l'occhiaje anella senza gemme:

Chi nel visn degli uomini legge omo,

Bene avria quivi conosciuto l'emme."—

[*Purgat.* xxiii. 31.]



CHAP. III. and, though thirty miles from Mount Calvary, at least to lie in that region which should produce the first fruits of the dead. And if, according to learned conjecture, the bodies of men shall rise where their greatest relicks remain, many are not like to err in the topography of their resurrection, though their bones or <sup>52</sup> bodies be after translated by angels into the field of Ezekiel's vision, or as some will order it, into the valley of judgment, or Jehosaphat <sup>1</sup>.

<sup>1</sup> Tirin. in Ezek.

## CHAPTER IV.

53 CHRISTIANS have handsomely glossed the deformity of death by careful consideration of the body, and civil rites which take off brutal terminations: and though they conceived all reparable by a resurrection, cast not off all care of interment. And since the ashes of sacrifices burnt upon the altar of God were carefully carried out by the priests, and deposed in a clean field; since they acknowledged their bodies to be the lodging of Christ, and temples of the Holy Ghost, they devolved not all upon the sufficiency of soul-existence; and therefore with long services and full solemnities, concluded their last exequies, wherein to all distinctions the Greek devotion seems most pathetically ceremonious<sup>1</sup>.

Christian invention hath chiefly driven at rites, which speak hopes of another life, and hints of a resurrection. And if the ancient Gentiles held not the immortality of their better part, and some subsistence after death, in several rites, customs,

[1] Ancient belief in the Resurrection.

[2] Variety of funeral rites.

Immortality of the soul.

<sup>1</sup> *Rituale Græcorum*, opera J. Goar, in "Officio Exequiarum."

CHAP. IV actions, and expressions, they contradicted their own opinions: wherein Democritus went high, even to the thought of a resurrection, as scoffingly recorded by Pliny<sup>1</sup>. What can be more express than the expression of Phocylides?<sup>2</sup> Or who would expect from Lucretius<sup>3</sup> a sentence of Ecclesiastes? Before Plato could speak, the soul had wings in Homer, which fell not, but *flew out of the body into the mansions of the dead*; who also observed that handsome distinction of Demas and Soma, for the body conjoined to the soul, and body separated from it. Lucian spoke much truth in jest, when he said that part of Hercules which proceeded from Alcmena perished, that from Jupiter remained immortal. Thus Socrates<sup>4</sup> was content that his friends should bury his body, so they would not think they buried Socrates; and, regarding only 55 his immortal part, was indifferent to be burnt or buried. From such considerations, Diogenes might <sup>not</sup> condemn sepulture, and, being satisfied that the soul could not perish, grow careless of corporal interment. The Stoicks, who thought the souls of wise men had their habitation about the moon, might make slight account of subterraneous deposition; whereas the Pythagoreans and transcorporating philosophers, who were to

<sup>1</sup> "Similis . . . reviviscendi promissa a Democrito vanitas, qui non revixit ipse. Quæ (malum) ista dementia est, iterari vitam morte?"—Plin. l. vii. c. 55 (56).

<sup>2</sup> Καὶ τάχα δ' ἐκ γαίης ἐλπίσμεν ἐς θεός ἐλθεῖν  
Λεῖψαν' ἀποικομένων. *et deinceps.*

[v. 104 in Bergk's *Anthol. Lyrica.*]

<sup>3</sup> "Cedit enim retro de terra quod fuit ante  
In terras," &c.—Lucret. l. iii. 998; Eccles. xii. 7).

<sup>4</sup> Plato in *Phæd.* [c. 64, p. 115 Cl]

be often buried, held great care of their interment. And the Platonicks rejected not a due care of the grave, though they put their ashes to unreasonable expectations, in their tedious term of return and long set revolution. CHAP. IV.

Men have lost their reason in nothing so [3] much as their religion, wherein stones and clouts make martyrs; and, since the religion of one seems madness unto another, to afford an account or rational of old rites requires no rigid reader. That they kindled the pyre aversely, or turning their face from it, was an handsome symbol of unwilling ministration. That they washed their bones with wine and milk; that the mother wrapped them in linen, and dried them in her bosom, the first fostering part and place of their nourishment; that they opened their eyes towards heaven before they kindled the fire, as the place of their hopes or original, were no improper ceremonies. Their last valediction<sup>1</sup>, thrice uttered by the attendants, was also very solemn, and somewhat answered by Christians, who thought it too little, if they threw not the earth thrice upon the interred body. That, in strewing their tombs, the Romans affected the rose; the Greeks amaranthus and myrtle: that the funeral pyre consisted of sweet fuel, cypress, fir, larix, yew, and trees perpetually verdant, lay silent expressions of their surviving hopes. Wherein Christians, who deck their coffins with bays, have found a more elegant emblem; for that tree, seeming dead, will restore

Force of  
superstition.

Funeral  
flowers and  
plants.

1 "Vale, vale, nos te ordine quo natura permittet sequamur."

CHAP. IV. itself from the root, and its dry and exsuccous leaves resume their verdure again; which, if we mistake not, we have also observed in furze. Whether the planting of yew in churchyards hold not its original from ancient funeral rites, or as an emblem of resurrection, from its perpetual verdure, may also admit conjecture.

[4] They made use of musick to excite or quiet the affections of their friends, according to different harmonies. But the secret and symbolical hint was the harmonical nature of the soul; which, delivered from the body, went again to enjoy the primitive harmony of heaven, from whence it first descended; which, according to its progress traced by antiquity, came down by Cancer, and ascended by Capricornus.

Funerals of  
infants.  
(Pliny, *Hist.*  
*Nat.* vii. 15.)

[5] They burnt not children before their teeth appeared, as apprehending their bodies too tender a morsel for fire, and that their gristly bones would scarce leave separable relicks after the pyral combustion. That they kindled not fire in their houses for some days after was a strict memorial of the late afflicting fire. And mourning without hope, they had an happy fraud against excessive lamentation, by a common opinion that deep sorrows disturb their ghosts<sup>1</sup>.

] That they buried their dead on their backs, or in a supine position, seems agreeable unto profound sleep, and common posture of dying; contrary to the most natural way of birth; nor unlike our pendulous posture, in the doubtful state of the womb. Diogenes was singular, who

<sup>1</sup> "Tu manes ne lude meos."

preferred a prone situation in the grave ; and CHAP. IV.  
some Christians <sup>1</sup> like neither, who decline the  
figure of rest, and make choice of an erect posture.

That they carried them out of the world with [7]  
their feet forward, not inconsonant unto reason,  
as contrary unto the native posture of man, <sup>2</sup>  
and his production first into it ; and also agree-  
able unto their opinions, while they bid adieu  
unto the world, not to look again upon it ;  
whereas Mahometans who think to return to a  
delightful life again, are carried forth with their  
heads forward, and looking toward their houses.

They closed their eyes, as parts which first [8]  
die, or first discover the sad effects of death. Closing of  
But their iterated clamations to excitate their the eyes.  
59 dying or dead friends, or revoke them unto life  
again, was a vanity of affection ; as not pre-  
sumably ignorant of the critical tests of death,  
by apposition of feathers, glasses, and reflec-  
tion of figures, which dead eyes represent not :  
which, however not strictly verifiable in fresh  
and warm *cadavers*, could hardly elude the test,  
in corpses of four or five days <sup>2</sup>.

That they sucked in the last breath of their [9]  
expiring friends, was surely a practice of no  
medical institution, but a loose opinion that the  
soul passed out that way, and a fondness of  
affection, from some Pythagorical foundation <sup>3</sup>,  
that the spirit of one body passed into another,  
which they wished might be their own.

<sup>1</sup> Russians, &c.

<sup>2</sup> At least by some difference from living eyes.

<sup>3</sup> Francesco Perucci, *Pompe funebri*.

CHAP. IV. That they poured oil upon the pyre, was  
 [10] a tolerable practice, while the intention rested  
 in facilitating the accension. But to place good  
 omens in the quick and speedy burning, to  
 sacrifice unto the winds for a dispatch in this  
 office, was a low form of superstition.

Funeral  
 jesters.

[11] The archimime, or jester, attending the funeral  
 train, and imitating the speeches, gesture, and  
 manners of the deceased, was too light for such  
 solemnities, contradicting their funeral orations  
 and doleful rites of the grave.

[12] That they buried a piece of money with them  
 as a fee of the Elysian ferryman, was a practice  
 full of folly. But the ancient custom of placing  
 coins in considerable urns, and the present prac-  
 tice of burying medals in the noble foundations  
 of Europe, are laudable ways of historical dis-  
 coveries, in actions, persons, chronologies; and  
 posterity will applaud them.

[13] We examine not the old laws of sepulture,  
 exempting certain persons from burial or  
 burning. But hereby we apprehend that these  
 were not the bones of persons planet-struck or  
 burnt with fire from heaven; no reliicks of  
 traitors to their country, self-killers, or sacri-  
 legious malefactors; persons in old apprehen-  
 sion unworthy of the earth; condemned unto  
 the Tartarus of hell, and bottomless pit of Plato,  
 from whence there was no redemption.

Funerals of  
 self-killers.

[14] Nor were only many customs questionable  
 in order to their obsequies, but also sundry  
 practices, fictions, and conceptions, discordant  
 or obscure, of their state and future beings.

Whether unto eight or ten bodies of men to add CHAP. IV.  
one of a woman, as being more inflammable, and unctuously constituted for the better pyral combustion, were any rational practice; or whether the complaint of Periander's wife be tolerable, that wanting her funeral burning, she suffered intolerable cold in hell, according to the constitution of the infernal house of Plato, wherein cold makes a great part of their tortures, it cannot pass without some question.

Why the female ghosts appear unto Ulysses, [15] before the heroes and masculine spirits,—why the Psyche or soul of Tiresias is of the masculine gender<sup>1</sup>, who, being blind on earth, sees more than all the rest in hell; why the funeral suppers consisted of eggs, beans, smallage, and lettuce, since the dead are made to eat asphodels<sup>2</sup> about the Elysian meadows,—why, since there is no sacrifice acceptable, nor any propitiation for the covenant of the grave, men set<sup>2</sup> up the deity of Morta, and fruitlessly adored divinities without ears, it cannot escape some doubt.

The dead seem all alive in the human Hades<sup>[16]</sup> of Homer, yet cannot well speak, prophesy, or know the living, except they drink blood, wherein is the life of man. And therefore the souls of Penelope's paramours, conducted by Mercury, chirped like bats, and those which followed Hercules, made a noise but like a flock of birds.

<sup>1</sup> In Homer [*Od.* xi. 90]:

Ψυχὴ Θηβαίου Τειρεσίαο  
—σκήπτρον ἔλαυν.

<sup>2</sup> In Lucian [*Catachresis* § 2].



CHAP. IV. The departed spirits know things past and  
[17] to come; yet are ignorant of things present.

Agamemnon foretells what should happen unto Ulysses; yet ignorantly enquires what is become of his own son. The ghosts are afraid of swords in Homer; yet Sibylla tells Æneas in Virgil, the thin habit of spirits was beyond the force of weapons. The spirits put off their malice with their bodies, and Cæsar and Pompey accord in Latin hell; yet Ajax, in Homer, endures not a conference with Ulysses: and Deiphobus appears all mangled in Virgil's ghosts, yet we meet with perfect shadows among the wounded ghosts of Homer.

[18] Since Charon in Lucian applauds his condition 63

among the dead, whether it be handsomely said of Achilles, that living contemner of death, that he had rather be a ploughman's servant, than emperor of the dead? How Hercules his soul is in hell, and yet in heaven; and Julius his soul in a star, yet seen by Æneas in hell?—

(Horace,  
*Od. i. 12. 47.*)

except the ghosts were but images and shadows of the soul, received in higher mansions, according to the ancient division of body, soul, and image, or *simulacrum* of them both. The particulars of future beings must needs be dark unto ancient theories, which Christian philosophy yet determines but in a cloud of opinions. A dialogue between two infants in the womb concerning the state of this world, might handsomely illustrate our ignorance of the next, whereof methinks we yet discourse in Plato's den, and are but embryon philosophers.

Pythagoras escapes in the fabulous Hell of CHAP. IV.  
 Dante<sup>1</sup>, among that swarm of philosophers, [19]  
 wherein whilst we meet with Plato and Socrates,  
 Cato is to be found in no lower place than  
 purgatory. Among all the set, Epicurus is  
 most considerable, whom men make honest  
 without an Elysium, who contemned life with-  
 out encouragement of immortality, and making  
 nothing after death, yet made nothing of the  
 king of terrors.

Were the happiness of the next world as [20]  
 closely apprehended as the felicities of this, it  
 were a martyrdom to live; and unto such as Reflections  
on death and  
immortality.  
 consider none hereafter, it must be more than  
 death to die, which makes us amazed at those  
 audacities that durst be nothing and return into  
 their chaos again. Certainly such spirits as  
 could condemn death, when they expected no  
 better being after, would have scorned to live,  
 had they known any. And therefore we applaud  
 not the judgment of Machiavel, that Christianity  
 makes men cowards, or that with the confi-  
 dence of but half-dying, the despised virtues of  
 patience and humility have abased the spirits  
 of men, which Pagan principles exalted; but  
 rather regulated the wildness of audacities, in  
 the attempts, grounds, and eternal sequels of  
 death; wherein men of the boldest spirits are  
 often prodigiously temerarious. Nor can we  
 65 extenuate the valour of ancient martyrs, who  
 contemned death in the uncomfortable scene of

<sup>1</sup> *Del Inferno*, cant. 4.

CHAP. IV. <sup>Conf. 61. with 75</sup> their lives, and in their decrepit martyrdoms did probably lose not many months of their days, or parted with life when it was scarce worth the living. For (beside that long time past holds no consideration unto a slender time to come) they had no small disadvantage from the constitution of old age, which naturally makes men fearful; complexionally superannuated from the bold and courageous thoughts of youth and fervent years. But the contempt of death from corporal animosity, promoteth not our felicity. They may sit in the orchestra, and noblest seats of heaven, who have held up shaking hands in the fire, and humanly contended for glory.

[21] Opinions of  
Epicurus. Meanwhile Epicurus lies deep in Dante's Hell, wherein we meet with tombs enclosing souls which denied their immortalities. But whether the virtuous heathen, who lived better than he spake, or erring in the principles of himself, yet lived above philosophers of more specious maxims, lie so deep as he is placed, at least so low as not to rise against Christians, who believing or knowing that truth, have lastingly denied it in their practice and conversation — were a query too sad to insist on.

[22] But all or most apprehensions rested in opinions of some future being, which, ignorantly or coldly believed, begat those perverted conceptions, ceremonies, sayings, which Christians pity or laugh at. Happy are they which live not in that disadvantage of time, when men could say little for futurity, but from reason :

whereby the noblest minds fell often upon CHAP. IV.  
doubtful deaths, and melancholy dissolutions.  
With these hopes, Socrates warmed his doubtful  
spirits against that cold potion; and Cato,  
before he durst give the fatal stroke, spent part  
of the night in reading the Immortality of Plato,  
thereby confirming his wavering hand unto the  
animosity of that attempt.

It is the heaviest stone that melancholy can [23]  
throw at a man, to tell him he is at the end of  
his nature; or that there is no further state to Dread of an-  
come, unto which this seems progressional, and nihilation,  
otherwise made in vain. Without this accom-  
plishment, the natural expectation and desire of  
such a state, were but a fallacy in nature; un-  
satisfied considerators would quarrel the justice  
of their constitutions, and rest content that Adam  
had fallen lower; whereby, by knowing no other  
original, and deeper ignorance of themselves,  
they might have enjoyed the happiness of in-  
ferior creatures, who in tranquillity possess their  
constitutions, as having not the apprehension  
to deplore their own natures, and, being framed  
below the circumference of these hopes, or cog-  
nition of better being, the wisdom of God hath  
necessitated their contentment: but the supe-  
rior ingredient and obscured part of ourselves,  
whereto all present felicities afford no resting  
contentment, will be able at last to tell us, we  
are more than our present selves, and evacuate  
such hopes in the fruition of their own accom-  
plishments.

## CHAPTER V.

[1] Duration of bones. NOW since these dead bones have already 69  
out-lasting the living ones of Methuselah,  
and in a yard under ground, and thin walls of  
clay, out-worn all the strong and specious build-  
ings above it, and quietly rested under the  
drums and tramlings of three conquests: what  
prince can promise such diuturnity unto his  
relicks, or might not gladly say,

"Sic ego componi versus in ossa velim?<sup>1</sup>"

Time, which antiquates antiquities, and hath an  
art to make dust of all things, hath yet spared  
these minor monuments.

[2] Reflections on the uni-  
versal desire felt to be  
remembered  
after our  
death. In vain we hope to be known by open and  
visible conservatories, when to be unknown was  
the means of their continuation, and obscurity  
their protection. If they died by violent hands,  
and were thrust into their urns, these bones  
become considerable, and some old philoso-  
phers would honour them<sup>2</sup>, whose souls they 70

<sup>1</sup> Tibullus (iii. 2. 26).

<sup>2</sup> Oracula Chaldaica cum scholis Pælli et Plethonis. Βίη  
λιποῦται σῶμα ψυχαὶ καθαρῶνται. "Vi corpus relinquentium  
animæ purissimæ."

conceived most pure, which were thus snatched CHAP. V.  
 from their bodies, and to retain a stronger pro-  
 pension unto them; whereas they weariedly  
 left a languishing corpse, and with faint desires  
 of re-union. If they fell by long and aged  
 decay, yet wrapt up in the bundle of time, they  
 fall into indistinction, and make but one blot  
 with infants. If we begin to die when we live,  
 and long life be but a prolongation of death,  
 our life is a sad composition; we live with  
 death, and die not in a moment. How many  
 pulses made up the life of Methuselah, were Pulses of  
Methuselah  
 work for Archimedes: common counters sum  
 up the life of Moses his man<sup>1</sup>. Our days  
 become considerable, like petty sums, by minute  
 accumulations; where numerous fractions make  
 up but small round numbers; and our days of  
 a span long, make not one little finger<sup>2</sup>.

If the nearness of our last necessity brought [3]  
*a nearer conformity into it, there were a happi-*  
*ness in hoary hairs, and no calamity in half-*  
*senses. But the long habit of living indisposeth*  
*us for dying; when avarice makes us the sport*  
*of death, when even David grew politickly cruel,*  
*and Solomon could hardly be said to be the*  
*wisest of men. But many are too early old,*  
*and before the date of age. Adversity stretcheth*  
*our days, misery makes *Alcmene's* nights<sup>3</sup>, and*  
*time hath no wings unto it. But the most*

weary

I shall never be weary

CHAP. V. tedious being is that which can unwish itself, content to be nothing, or never to have been, which was beyond the malcontent of Job, who cursed not the day of his life, but his nativity; content to have so far been, as to have a title to future being, although he had lived here but in an hidden state of life, and as it were an abortion.

Song of the  
Syrens —  
Homer.

[4] What song the Syrens sang, or what name Achilles assumed when he hid himself among women, though puzzling questions<sup>1</sup>, are not beyond all conjecture. What time the persons of these ossuaries entered the famous nations of the dead<sup>2</sup>, and slept with princes and counselors, might admit a wide solution. But who were the proprietaries of these bones, or what bodies these ashes made up, were a question<sup>72</sup> above antiquarianism; not to be resolved by man, nor easily perhaps by spirits, except we consult the provincial guardians, or tutelary observers. Had they made as good provision for their names, as they have done for their relicks, they had not so grossly erred in the art of perpetuation. But to subsist in bones, and be but pyramidally extant, is a fallacy in duration. Vain ashes which in the oblivion of names, persons, times, and sexes, have found unto themselves a fruitless continuation, and only arise unto late posterity, as emblems of mortal vanities, antidotes against pride, vain-glory,

Vanity of  
tombs.

<sup>1</sup> The puzzling questions of Tiberius unto grammarians.—  
Marcel. Donatus in Suet. [*Tiberius* lxx.]

<sup>2</sup> *ἅλυστα ἐθίσα νεκρῶν*.—Hom. [*Od.* x. 526]; Job [iii. 13. &c.]

and madding vices. Pagan vain-glories which thought the world might last for ever, had encouragement for ambition ; and, finding no Atropos unto the immortality of their names, were never damp't with the necessity of oblivion. Even old ambitions had the advantage of ours, in the attempts of their vain-glories, who acting early, and before the probable meridian of time, 73 have by this time found great accomplishment of their designs, whereby the ancient heroes have already out-lasted their monuments and mechanical preservations. But in this latter scene of time, we cannot expect such mummies unto our memories, when ambition may fear the prophecy of Elias<sup>1</sup>, and Charles the Fifth can never hope to live within two Methuselahs of Hector<sup>2</sup>.

And therefore, restless unquiet for the diuturnity of our memories unto present considerations [5] seems a vanity almost out of date, and superannuated piece of folly. We cannot hope to live so long in our names, as some have done in their persons. One face of Janus holds no proportion unto the other. 'Tis too late to be ambitious. The great mutations of the world are acted, or time may be too short for our designs. To extend our memories by monuments, whose death we daily pray for, and whose duration we cannot hope, without injury to our expectations in the advent of the last day,

<sup>1</sup> That the world may last but six thousand years.

<sup>2</sup> Hector's fame lasting above two lives of Methuselah, before that famous prince was extant.



CHAP. V. were a contradiction to our beliefs. We whose generations are ordained in this setting part of time, are providentially taken off from such 74 imaginations; and, being necessitated to eye the remaining particle of futurity, are naturally constituted unto thoughts of the next world, and cannot excusably decline the consideration of that duration, which maketh pyramids pillars of snow, and all that's past a moment.

[6] Circles and right lines limit and close all bodies, and the mortal right-lined circle<sup>1</sup> must conclude and shut up all. There is no antidote against the opium of time, which temporally considereth all things: our fathers find their graves in our short memories, and sadly tell us how we may be buried in our survivors. Grave-stones tell truth scarce forty years<sup>2</sup>. Generations pass while some trees stand, and old families last not three oaks. To be read by bare inscriptions like many in Gruter<sup>3</sup>, to hope for eternity by enigmatical epithets or first letters of our names, to be studied by antiquaries, who we were, and have new names given us like many of the mummies<sup>4</sup>, are cold consolations 75 unto the students of perpetuity, even by everlasting languages.

7] To be content that times to come should only know there was such a man, not caring

<sup>1</sup> ☉ The character of death. [Mart. Ep. vii. 37.]

<sup>2</sup> Old ones being taken up, and other bodies laid under them.

<sup>3</sup> Gruteri *Inscriptiones Antiquæ*.

<sup>4</sup> Which men show in several countries, giving them what names they please; and unto some the names of the old Egyptian kings, out of Herodotus.

whether they knew more of him, was a frigid CHAP. V.  
ambition in Cardan<sup>1</sup>; disparaging his horo-  
scopical inclination and judgment of himself.  
Who cares to subsist like Hippocrates' patients,  
or Achilles' horses in Homer, under naked (II. xvi. 149.  
nominations, without deserts and noble acts,  
which are the balsam of our memories, the  
entelechia and soul of our subsistences? To be  
nameless in worthy deeds, exceeds an infamous  
history. The Canaanitish woman lives more  
happily without a name, than Herodias with  
one. And who had not rather been the good  
thief than Pilate?

But the iniquity of oblivion blindly scattereth [8]  
her poppy, and deals with the memory of men  
without distinction to merit of perpetuity. Who  
can but pity the founder of the pyramids?  
Herostratus lives that burnt the temple of  
Diana, he is almost lost that built it. Time  
hath spared the epitaph of Adrian's horse, con-  
founded that of himself. In vain we compute  
our felicities by the advantage of our good  
names, since bad have equal durations, and  
Thersites is like to live as long as Agamemnon.  
Who knows whether the best of men be known,  
or whether there be not more remarkable persons  
forgot, than any that stand remembered in the  
known account of time? Without the favour  
of the everlasting register, the first man had  
been as unknown as the last, and Methuselah's  
long life had been his only chronicle.

<sup>1</sup> "Cuperem notum esse quod sim, non opto ut sciatur qualis  
sim."—(Card. in *Vita Propria*.)

CHAP. V. Oblivion is not to be hired. The greater  
 [9] part must be content to be as though they had not been, to be found in the register of God, not in the record of man. Twenty-seven names make up the first story<sup>1</sup>, and the recorded names ever since contain not one living century. The number of the dead long exceedeth all that shall live. The night of time far surpasseth the day, and who knows when was the equinox? Every hour adds unto that current arithmetick, which scarce stands one moment. And since death must be the *Lucina* of life, and even 77 Pagans<sup>2</sup> could doubt, whether thus to live were to die; since our longest sun sets at right descensions, and makes but winter arches, and therefore it cannot be long before we lie down in darkness, and have our light in ashes<sup>3</sup>; since the brother of death daily haunts us with dying mementos, and time that grows old in itself, bids us hope no long duration;—diuturnity is a dream and folly of expectation.

] Darkness and light divide the course of time, and oblivion shares with memory a great part even of our living beings; we slightly remember our felicities, and the smartest strokes of affliction leave but short smart upon us. Sense endureth no extremities, and sorrows destroy us or themselves. To weep into stones are fables. Afflictions induce callosities; miseries are slippery, or fall like snow upon us, which

<sup>1</sup> Before the flood.

<sup>2</sup> Euripides.

<sup>3</sup> According to the custom of the Jews, who place a lighted wax-candle in a pot of ashes by the corpse. L. O.

notwithstanding is no unhappy stupidity. To be ignorant of evils to come, and forgetful of evils past, is a merciful provision in nature, whereby we digest the mixture of our few and evil days, and, our delivered senses not relapsing into cutting remembrances, our sorrows are not kept raw by the edge of repetitions. A great part of antiquity contented their hopes of subsistency with a transmigration of their souls,—a good way to continue their memories, while having the advantage of plural successions, they could not but act something remarkable in such variety of beings, and enjoying the fame of their passed selves, make accumulation of glory unto their last durations. Others, rather than be lost in the uncomfortable night of nothing, were content to recede into the common being, and make one particle of the public soul of all things, which was no more than to return into their unknown and divine original again. Egyptian ingenuity was more unsatisfied, contriving their bodies in sweet consistencies, to attend the return of their souls. But all was vanity, feeding the wind, and folly. The Egyptian mummies, which Cambyse or time hath spared, avarice now consumeth. Mummy is become merchandise, Mizraim cures wounds, and Pharaoh is sold for balsams.

In vain do individuals hope for immortality, [11] or any patent from oblivion, in preservations below the moon; men have been deceived even

No immor-  
tality  
beneath the  
moon.

<sup>1</sup> "Omnia vanitas et pastio venti, ὅμη ἀέριον καὶ βίοντες,"  
ut olim Aquila et Symmachus. v. Drus., Eccles. [ii. 14].

CHAP. V in their flatteries above the sun, and studied conceits to perpetuate their names in heaven. The various cosmography of that part hath already varied the names of contrived constellations; Nimrod is lost in Orion, and Osyris in the Dog-star. While we look for incorruption in the heavens, we find they are but like the earth; —durable in their main bodies, alterable in their parts; whereof, beside comets and new stars, perspectives begin to tell tales, and the spots that wander about the sun, with Phaeton's favour, would make clear conviction.

[12] There is nothing strictly immortal, but immortality. Whatever hath no beginning, may be confident of no end (all others have a dependent being and within the reach of destruction); which is the peculiar of that necessary Essence that cannot destroy itself; and the highest strain of omnipotency, to be so power-fully constituted as not to suffer even from the power of itself. But the sufficiency of Christian immortality frustrates all earthly glory, and the quality of either state after death, makes a folly of posthumous memory. God who can only destroy our souls, and hath assured our resurrection, either of our bodies or names hath directly promised no duration. Wherein there is so much of chance, that the boldest expectants have found unhappy frustration; and to hold long subsistence, seems but a scape in oblivion. But man is a noble animal, splendid in ashes, and pompous in the grave, solemnizing natiivities and deaths with equal lustre, nor omitting

Nothing immortal but immortality.

ceremonies of bravery in the infamy of his nature. CHAP. V.

Life is a pure flame, and we live by an in- [13]  
visible sun within us. A small fire sufficeth for  
life, great flames seemed too little after death,  
while men vainly affected precious pyres, and to  
burn like Sardanapalus; but the wisdom of  
funeral laws found the foily of prodigal blazes,  
and reduced undoing fires unto the rule of sober  
obsequies, wherein few could be so mean as not  
to provide wood, pitch, a mourner, and an urn<sup>1</sup>.

Five languages secured not the epitaph of [14]  
Gordianus<sup>2</sup>. The man of God lives longer <sup>Vanity of</sup>  
without a tomb, than any by one, invisibly <sup>Epitaphs.</sup>  
interred by angels, and adjudged to obscurity,  
though not without some marks directing human  
discovery. Enoch and Elias, without either  
tomb or burial, in an anomalous state of being,  
are the great examples of perpetuity, in their  
long and living memory, in strict account being  
still on this side death, and having a late part  
yet to act upon this stage of earth. If in the  
decretory term of the world, we shall not all die  
but be changed, according to received transla-  
tion, the last day will make but few graves; at  
least quick resurrections will anticipate lasting

<sup>1</sup> According to the epitaph of Rufus and Beronica, in Gruterus,

"Nec ex  
Eorum bonis plus inventum est, quam  
Quod sufficeret ad emendam pyram,  
Et picem quibus corpora cremarentur,  
Et præfica conductæ, et olla emptæ."

<sup>2</sup> In Greek, Latin, Hebrew, Egyptian, Arabic, defaced by Licinius the emperor.

CHAP. V. sepultures. Some graves will be opened before they be quite closed, and Lazarus be no wonder. When many that feared to die, shall groan that they can die but once, the dismal state is the second and living death, when life puts despair on the damned; when men shall wish the coverings of mountains, not of monuments, and annihilations shall be courted.

- [15] While some have studied monuments, others have studiously declined them, and some have been so vainly boisterous, that they durst not acknowledge their graves; wherein Alaricus<sup>1</sup> seems most subtle, who had a river turned to hide his bones at the bottom. Even Sylla, that thought himself safe in his urn, could not prevent revenging tongues, and stones thrown at his monument. Happy are they whom privacy makes innocent, who deal so with men in this world, that they are not afraid to meet them in the next; who, when they die, make no commotion among the dead, and are not touched with that poetical taunt of Isaiah<sup>2</sup>.
- [16] Pyramids, arches, obelisks, were but the irregularities of vain-glory, and wild enormities of ancient magnanimity. But the most magnanimous resolution rests in the Christian religion,<sup>83</sup> which trampleth upon pride, and sits on the neck of ambition, humbly pursuing that infallible perpetuity, unto which all others must diminish their diameters, and be poorly seen in angles of contingency<sup>3</sup>.

<sup>1</sup> *Jornandes de rebus Geticis.*

<sup>2</sup> Isa. xiv. 16, &c.

<sup>3</sup> *Angulus contingentia*, the least of angles.

Pious spirits who passed their days in raptures of futurity, made little more of this world, than [17] the world that was before it, while they lay obscure in the chaos of pre-ordination, and night of their fore-beings. And if any have been so happy as truly to understand Christian annihilation, ecstasies, exolution, liquefaction, transformation, the kiss of the spouse, gustation of God, and ingression into the divine shadow, they have already had an handsome antieipation of heaven; the glory of the world is surely over, and the earth in ashes unto them.

To subsist in lasting monuments, to live in [18] their productions, to exist in their names and predicament of chimæras, was large satisfaction unto old expectations, and made one part of their Elysiums. But all this is nothing in the metaphysicks of true belief. To live indeed, is to be again ourselves, which being not only an hope, but an evidence in noble believers, 'tis all one to lie in St. Innocents' <sup>1</sup> church-yard, as in the sands of Egypt. Ready to be any thing, in the ecstasy of being ever, and as content with six foot as the *moles* of Adrianus <sup>2</sup>.

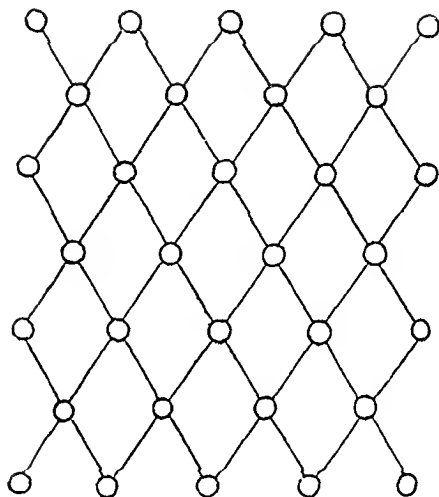
"—tabesne cadavera solvat,  
An rogos, haud refert."—Lucan [*Phars.* vii. 800].

.....

<sup>1</sup> In Paris, where bodies soon consume.

<sup>2</sup> A stately mausoleum or sepulchral pile, built by Adrianus in Rome, where now standeth the castle of St. Angelo.





Quid [illo] Quincunee speciosius, qui, in  
quamcunque partem spectaveris,  
rectus est.—QUINTILIAN [8. 3. 9]

THE  
G A R D E N  
OF  
C Y R U S.

OR,  
The Quincunciall, Lozenge,  
or Net-work Plantations  
of the Ancients, Artificially  
Naturally, Myſtically  
Conſidered.

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BY  
*Thomas Brown* D. of Phyſick

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p. ix

TO MY

WORTHY AND HONOURED FRIEND,

NICHOLAS BACON,

OF GILLINGHAM, ESQUIRE.

HAD I not observed that purblind<sup>1</sup> men [1]  
have discoursed well of sight, and some The Epistle  
Dedicatory. without issue<sup>2</sup>, excellently of generation; I, that  
was never master of any considerable garden,  
had not attempted this subject. But the earth  
is the garden of nature, and each fruitful country  
a paradise. Dioscorides made most of his  
observations in his march about with Antonius;  
and Theophrastus raised his generalities chiefly  
from the field.

Beside, we write no herbal, nor can this volume [2]  
deceive you, who have handled the massiest<sup>3</sup>  
thercof: who know that three folios<sup>4</sup> are yet  
too little, and how new herbals fly from America  
x upon us: from persevering enquirers, and old<sup>5</sup> in  
those singularities, we expect such descriptions;

<sup>1</sup> Plempius, Cabeus, &c.

<sup>2</sup> Dr. Harvey.

<sup>3</sup> Besleri, *Hortus Eystelensis*.

<sup>4</sup> Bauhini, *Theatrum Botanicum*, &c.

<sup>5</sup> My worthy friend Mr. Goodier, an ancient and learned  
botanist.

The Epistle  
Dedicatory. wherein England <sup>1</sup> is now so exact, that it yields not to other countries.

[3] We pretend not to multiply vegetable divisions by quincuncial and reticulate plants; or erect a new phytology. The field of knowledge hath been so traced, it is hard to spring any thing new. Of old things we write something new, if truth may receive addition, or envy will have any thing new; since the ancients knew the late anatomical discoveries, and Hippocrates the circulation.

Envy will  
have nothing  
new.

[4] You have been so long out of trite learning, that 'tis hard to find a subject proper for you; and if you have met with a sheet upon this, we have missed our intention. In this multiplicity of writing, by and barren themes are best fitted for invention; subjects so often discoursed confine the imagination, and fix our conceptions unto the notions of forewriters. Beside, such discourses allow excursions, and venially admit of collateral truths, though at some distance from their principals. Wherein if we sometimes take wide liberty, we are not single, but err by great example <sup>2</sup>.

[5] He that will illustrate the excellency of this xi order, may easily fail upon so spruce a subject, wherein we have not affrighted the common reader with any other diagrams, than of itself; and have industriously declined illustrations from rare and unknown plants.

<sup>1</sup> As in London and divers parts, whereof we mention none, lest we seem to omit any.

<sup>2</sup> Hippocrates *de Superfétatione, de Dentitione*

Your discerning judgment, so well acquainted [6] with that study, will expect herein no mathematical truths, as well understanding how few generalities and *Ufnitas*<sup>1</sup> there are in nature; how Scaliger hath found exceptions in most universals of Aristotle and Theophrastus; how botanical maxims must have fair allowance, and are tolerably current, if not intolerably over-balanced by exceptions.

The Epistle  
Dedictory.

Few gene-  
ralities in  
nature.

You have wisely ordered your vegetable [7] delights, beyond the reach of exception. The Turks who passed their days in gardens here, will have also gardens hereafter, and delighting in flowers on earth, must have lilies and roses in heaven. In garden delights 'tis not easy to hold a mediocrity; that insinuating pleasure is seldom without some extremity. The ancients venially delighted in flourishing gardens; many were florists that knew not the true use of a flower; and in Pliny's days none had directly  
xii treated of that subject. Some commendably affected plantations of venomous vegetables, some confined their delights unto single plants, and Cato seemed to dote upon cabbage; while the ingenuous delight of tulipists, stands saluted with hard language, even by their own professors<sup>2</sup>.

The Turks  
will have  
gardens  
hereafter.

That in this garden discourse, we range into [8] extraneous things, and many parts of art and nature, we follow herein the example of old and

<sup>1</sup> Rules without exceptions.

<sup>2</sup> "Tulipo-mania," "Nattercruild;" Laurenberg, Pet. Hon-  
dius in lib. *Belg.*

The Epistle  
Dedicatory.

new plantations, wherein noble spirits contented not themselves with trees, but by the attendance of aviaries, fish-ponds, and all variety of animals, they made their gardens the epitome of the earth, and some resemblance of the secular shows of old.

- [9] That we conjoin these parts of different subjects, or that this should succeed the other, your judgment will admit without impute of incongruity; since the delightful world comes after death, and paradise succeeds the grave; since the verdant state of things is the symbol of the resurrection, and to flourish in the state of glory, we must first be sown in corruption:—beside the ancient practice of noble persons, to conclude in garden-graves, and urns themselves of old to be wrapt up in flowers and garlands. xiii

Pictures of  
Apelles.

- [10] “Nullum sine venia placuisse cloquium,” is more sensibly understood by writers, than by readers; nor well apprehended by either, till works have hanged out like Apelles his pictures: wherein even common eyes will find something for emendation.

- [11] To wish all readers of your abilities, were unreasonably to multiply the number of scholars beyond the temper of these times. But unto this ill-judging age, we charitably desire a portion of your equity, judgment, candour, and ingenuity; wherein you are so rich, as not to lose by diffusion. And being a flourishing branch of that noble family<sup>1</sup>, unto whom we

<sup>1</sup> Of the most worthy Sir Edmund Bacon, prime baronet, my true and noble friend.

owe so much observance, you are not new set, The Epistle  
 but long rooted in such perfection; whereof Dedicatory.  
 having had so lasting confirmation in your  
 worthy conversation, constant amity, and ex-  
 pression; and knowing you a serious student  
 in the highest *arcana* of nature; with much  
 excuse we bring these low delights, and poor  
 maniples to your treasure.

Your affectionate Friend,  
 and Servant,

THOMAS BROWNE.

Norwich, May 1 [1658].

# THE GARDEN OF CYRUS.

## CHAPTER I.

39 **T**HAT Vulcan gave arrows unto Apollo and [1]  
Diana the fourth day after their nativities, Of the  
according to Gentile theology, may pass for no Gardens of  
blind apprehension of the creation of the sun Antiquity.  
and moon, in the work of the fourth day: when  
90 the diffused light contracted into orbs, and  
shooting rays of those luminaries. Plainer descriptions there are from Pagan pens, of the creatures of the fourth day: while the divine philosopher<sup>1</sup> unhappily omitteth the noblest part of the third, and Ovid (whom many conceive to have borrowed his description from Moses), coldly deserting the remarkable account of the text, in three words<sup>2</sup> describeth this work of the third day,—the vegetable creation, and first ornamental scene of nature,—the primitive food of animals, and first story of physick in dietetical conservation.

For though physick may plead high, from [2]  
that medical act of God, in casting so deep

<sup>1</sup> Plato in *Timæo* [xv-xvii].

<sup>2</sup> "Fronde tegi silvas" [*Æt.* i. 44].



CHAP. I. a sleep upon our first parent, and chirurgery<sup>1</sup> find its whole art, in that one passage concerning the rib of Adam; yet is there no rivalry with garden contrivance and herbary; for if Paradise were planted the third day of the creation, as wiser divinity concludeth, the nativity thereof was too early for horoscopy: gardens were before gardeners, and but some hours after the earth.

Garden of  
Paradise.

[3] Of deeper doubt is its topography and local designation; yet being the primitive garden, and without much controversy<sup>2</sup> seated in the east, it is more than probable the first curiosity and cultivation of plants most flourished in those quarters. And since the ark of Noah first touched upon some mountains of Armenia, the planting art arose again in the east, and found its revolution not far from the place of its nativity, about the plains of those regions. And if Zoroaster were either Cham, Chus, or Mizraim, they were early proficients therein, who left, as Pliny delivereth, a work of agriculture.

[4] However, the account of the pensile or hanging gardens of Babylon, if made by Semiramis, the third or fourth from Nimrod, is of no slender antiquity; which being not framed upon ordinary level of ground, but raised upon pillars, admitting under-passages, we cannot accept as the first Babylonian gardens,—but a more eminent

Pensile or  
Hanging  
Gardens of  
Babylon,  
ascribed to  
Semiramis.

<sup>1</sup> *διαρραγή*, in opening the flesh; *ἑξαίρεσις*, in taking out the rib; *σύνθεσις*, in closing up the part again.

<sup>2</sup> For some there is from the ambiguity of the word [מִקְדֵּם] *Mikedom*, whether *ab Oriente*, or *a principio* [Gen. ii. 8].

progress and advancement in that art than any that went before it; somewhat answering or hinting the old opinion concerning Paradise  
 92 itself, with many conceptions elevated above the plane of the earth. CHAP. I.

Nebuchodonosor (whom some will have to be [5] the famous Syrian king of Diodorus) beautifully repaired that city, and so magnificently built his hanging gardens<sup>1</sup>, that from succeeding writers he had the honour of the first. From whence overlooking Babylon, and all the region about it, he found no circumscription to the eye of his ambition; till over-delighted with the bravery of this Paradise, in his melancholy metamorphosis he found the folly of that delight, and a proper punishment in the contrary habitation—in wild plantations and wanderings of the fields. Those of Nebuchodonosor.

The Persian gallants, who destroyed this [6] monarchy, maintained their botanical bravery. Unto whom we owe the very name of Paradise, wherewith we meet not in Scripture before the time of Solomon, and conceived originally Persian. The word for that disputed garden expressing, in the Hebrew, no more than a field enclosed, which from the same root is content to derive a garden and a buckler. Persian origin of the name Paradise.

93 Cyrus the Elder, brought up in woods and [7] mountains, when time and power enabled, pursued the dictate of his education, and brought the treasures of the field into rule and circumscription. So nobly beautifying the hanging Cyrus, the elder, improved the gardens of Babylon.

<sup>1</sup> Josephus [*Ant.* x. 11. § 1].

CHAP. I. gardens of Babylon, that he was also thought to be the author thereof.

[8] Ahasuerus (whom many conceive to have been Artaxerxes Longimanus), in the country and city of flowers<sup>1</sup>, and in an open garden, entertained his princes and people, while Vashti more modestly treated the ladies within the palace thereof.

Cyrus, the younger, a manual planter of gardens.

[9] But if, as some opinion<sup>2</sup>, King Ahasuerus were Artaxerxes Mnemon, that found a life and reign answerable unto his great memory, our magnified Cyrus was his second brother, who gave the occasion of that memorable work, and almost miraculous retreat of Xenophon. A person of high spirit and honour, naturally a king, though fatally prevented by the harmless chance of post-geniture ; not only a lord of gardens, but a manual planter thereof, disposing his trees, like his armies, in regular ordination. So that while old Laertes hath found a name in 94 Homer for pruning hedges, and clearing away thorns and briars ; while King Attalus lives for his poisonous plantations of aconites, henbane, hellebore, and plants hardly admitted within the walls of Paradise ; while many of the ancients do poorly live in the single names of vegetables ; all stories do look upon Cyrus as the splendid and regular planter.

[10] According whereto Xenophon<sup>3</sup> describeth his

<sup>1</sup> *Sushan* in *Susiana*.

<sup>2</sup> Plutarch, in the *Life of Artaxerxes*.

<sup>3</sup> Καλὰ μὲν τὰ δέδρα δι' ἴσον δὲ τὰ πεφυτευμένα, ὅρῃσι ἐν οἷσιν οἱ στίχοι τῶν δένδρων, εὐγώμια δὲ πάντα καλῶς. In *Œconomico* [4. § 21].

gallant plantation at Sardis, thus rendered by Strebæus. "*Arbores pari intervallo sitas, rectos ordines, et omnia perpulchrè in quincuncem directa.*" Which we shall take for granted as being accordingly rendered by the most elegant of the Latins<sup>1</sup>, and by no made term, but in use before by Varro. That is, the rows and orders so handsomely disposed, or five trees so set together, that a regular angularity, and thorough prospect, was left on every side. Owing this name not only unto the quintuple number of trees, but the figure declaring that number, which being doubled at the angle, makes up the letter X, that is, the emphatical  
95 decussation, or fundamental figure.

CHAP. I.  
Xenophon's  
description  
of his planta-  
tion at  
Sardis.

Now though, in some ancient and modern [11] practice, the area, or decussated plot might be a perfect square, answerable to a Tuscan pedestal, and the *quinquernio* or cinque point of a die, wherein by diagonal lines the intersection was rectangular; accommodable unto plantations of large growing trees, and we must not deny ourselves the advantage of this order; yet shall we chiefly insist upon that of Curtius and Porta<sup>2</sup>, in their brief description hereof. Wherein the *decussis* is made within in a longitudinal square, with opposite angles, acute and obtuse at the intersection, and so upon progression making a *rhombus* or lozenge figuration, which seemeth very agreeable unto the original figure. Answerable whereunto we observe the

Explanation  
of the rhom-  
boidal or  
lozenge  
formation.

<sup>1</sup> Cicero in *Cat. Major* [c. 17].

<sup>2</sup> Benedict. Curtius *de Hortis*. Bapt. Porta in *Villa*.

CHAP. I. decussated characters in many consulary coins, and even in those of Constantine and his sons, which pretend their pattern in the sky; the crucigerous ensign carried this figure, not transversely or rectangulary intersected, but in a decussation, after the form of an Andrean or Burgundian cross, which answereth this description.

Compared  
to St. An-  
drew's cross;

- [12] Where by the way we shall decline the old theme, so traced by antiquity, of crosses and crucifixion; whereof some being right, and of one single piece without transversion or transom, do little advantage our subject. Nor shall we take in the mystical *Tau*, or the cross of our blessed Saviour, which having in some descriptions an *Empedon*, or crossing footstay, made not one single transversion. And since the learned Lipsius hath made some doubt even of the cross of St. Andrew (since some martyrological histories deliver his death by the general name of a cross, and Hippolytus will have him suffer by the sword), we should have enough to make out the received cross of that martyr. Nor shall we urge the *Labarum*, and famous standard of Constantine, or make further use thereof, than as the first letters in the name of our Saviour Christ, in use among Christians, before the days of Constantine, to be observed in sepulchral monuments<sup>1</sup> of martyrs, in the reign of Adrian and Antoninus; and to be found 97 in the antiquities of the Gentiles, before the advent of Christ, as in the medal of King Ptolemy, signed with the same characters, and

<sup>1</sup> Of Marius, Alexander. *Roma Sotteranea*.

might be the beginning of some word or name, CHAP. I.  
which antiquaries have not hit on.

We will not revive the mysterious crosses of <sup>[13]</sup>  
Egypt, with circles on their heads, in the breast of Serapis, and the hands of their genial spirits, <sup>and the Egyptian</sup>  
not unlike the character of Venus, and looked <sup>*crux ansata.*</sup>  
on by ancient Christians with relation unto Christ. Since, however they first began, the Egyptians thereby expressed the process and motion of the spirit of the world, and the diffusion thereof upon the celestial and elemental nature; implied by a circle and right-lined intersection,—a secret in their telesmes and magical characters among them. Though he that considereth the plain cross<sup>1</sup> upon the head of the owl in the Lateran obelisk, or the cross<sup>2</sup> erected upon a pitcher diffusing streams of water into two basins, with sprinkling branches in them, and all described upon a two-footed altar, 98 as in the hieroglyphicks of the brazen table of Bembus, will hardly decline all thought of Christian signality in them.

We shall not call in the Hebrew *Tenupha*, or <sup>[14]</sup>  
ceremony of their oblations, waved by the priest unto the four quarters of the world, after the form of a cross, as in the peace offerings. And if it were clearly made out what is remarkably delivered from the traditions of the rabbins,—that as the oil was poured coronally or circularly

<sup>1</sup> Wherein the lower part is somewhat longer, as defined by Upton *de Studio Militari*, and Johannes de Bado Aureo, cum comment, clariss. et doctiss. Bissæi.

<sup>2</sup> Casal. *de Ritibus.*, Bosio, *La Trionfante Croce.*

CHAP. I. upon the head of kings, so the high-priest was anointed decussatively or in the form of an X,—though it could not escape a typical thought of Christ, from mystical considerators, yet being the conceit is Hebrew, we should rather expect its verification from analogy in that language, than to confine the same unto the unconcerned letters of Greece, or make it out by the characters of Cadmus or Palamedes.

[15] Of this quincuncial ordination the ancients practised much, discoursed little; and the moderns have nothing enlarged; which he that more nearly considereth, in the form of its square rhombus, and decussation, with the several commodities, mysteries, parallelisms, and resemblances, both in art and nature, shall easily discern the elegance of this order.

[16] That this was in some ways of practice in divers and distant nations, hints or deliveries there are from no slender antiquity. In the hanging gardens of Babylon, from Abydenus, Eusebius, and others<sup>1</sup>, Curtius describeth this rule of decussation. In the memorable garden of Alcinous, anciently conceived an original fancy from Paradise, mention there is of well contrived order; for so hath Didymus and Eustachius expounded the emphatical word. Diomedes, describing the rural possessions of his father, gives account in the same language of trees orderly planted. And Ulysses being a boy, was promised by his father forty fig-

The quincunx much used by the ancients, little discoursed of by the moderns.

Considerable, for its several commodities, mysticisms, parallelisms and resemblances, both in nature and art.

Used in the gardens of Babylon and Alcinous; the plantations of Diomed's father;

<sup>1</sup> "Decussatio ipsa jucundum ac peramœnum conspectum præbuit." Curt. *Histor.* l. 6.

trees, and fifty rows of vines producing all kinds of grapes. CHAP. I.

That the eastern inhabitants of India made [17] use of such order, even in open plantations, is deducible from Theophrastus; who, describing the trees whereof they made their garments, 100 plainly delivereth that they were planted κατ' ὄρχους, and in such order that at a distance men would mistake them for vineyards<sup>1</sup>. The same seems confirmed in Greece from a singular expression in Aristotle<sup>2</sup> concerning the order of vines, delivered by a military term representing the orders of soldiers, which also confirmeth the antiquity of this form yet used in vineal plantations:

That the same was used in Latin plantations [18] is plainly confirmed from the commending pen of Varro, Quintilian, and handsome description of Virgil<sup>3</sup>.

That the first plantations not long after the [19] flood were disposed after this manner, the generality and antiquity of this order observed in vineyards and vine plantations, affordeth some conjecture. And since, from judicious enquiry, Saturn, who divided the world between his three sons, who beareth a sickle in his hand, who taught the plantations of vines, the setting, grafting of trees, and the best part of agri-

<sup>1</sup> ὄρχοι, στίχοι ἀμπελων, φυτῶν στίχος, ἢ κατὰ τάξιν φυτεία. Plavorinus, Philoxenus.

<sup>2</sup> συστάδας ἀμπελων. *Polit.* vii. [10].

<sup>3</sup> "Indulge ordinibus; nec secius omnis in unguem Arboribus positis secto via limite quadret."

*Georg.* ii. [277-8].



CHAP. I. culture, is discovered to be Noah,—whether this  
 Probably by early dispersed husbandry in vineyards had not  
 Noah, its original in that patriarch, is no such para-  
 logical doubt.

[20] And if it were clear that this was used by  
 and if so, why Noah after the flood, I could easily believe it  
 not before was in use before it:—not willing to fix to  
 the flood? such ancient inventions no higher original than  
 Noah; nor readily conceiving those aged heroes,  
 whose diet was vegetable, and only or chiefly  
 consisted in the fruits of the earth, were much  
 deficient in their splendid cultivations, or (after  
 the experience of fifteen hundred years), left  
 much for future discovery in botanical agricul-  
 ture; nor fully persuaded that wine was the in-  
 vention of Noah, that fermented liquors, which  
 often make themselves, so long escaped their  
 luxury or experience, that the first sin of the  
 new world was no sin of the old; that Cain and  
 Abel were the first that offered sacrifice; or  
 because the Scripture is silent, that Adam or  
 Isaac offered none at all.

[21] Whether Abraham, brought up in the first  
 In Abra- planting country, observed not some rule hereof,  
 ham's grove when he planted a grove at Beer-sheba; or 102  
 at Beer- whether at least a like ordination were not in  
 sheba; in the the garden of Solomon, probability may contest;  
 garden of answerably unto the wisdom of that eminent  
 Solomon. botanologer, and orderly disposer of all his  
 other works. Especially since this was one  
 piece of gallantry, wherein he pursued the spe-  
 cious part of felicity, according to his own de-  
 scription: "I made me gardens and orchards,

and planted trees in them of all kinds of fruits : CHAP. I.  
 I made me pools of water, to water therewith  
 the wood that bringeth forth trees<sup>1</sup>." Which  
 was no ordinary plantation, if according to the  
 Targum, or Chaldee paraphrase, it contained  
 all kinds of plants, and some fetched as far as  
 India; and the extent thereof were from the  
 wall of Jerusalem unto the water of Siloah.

And if Jordan were but *Jaar Eden*, that is [22]  
 the river of Eden; Genesar but Gansar or the  
 prince of gardens; and it could be made out,  
 that the plain of Jordan were watered not com-  
 paratively, but causally, and because it was the  
 Paradise of God, as the learned Abramus<sup>2</sup>  
 hinteth: he was not far from the prototype  
 03 and original of plantations. And since even  
 in Paradise itself, the tree of knowledge was  
 placed in the middle of the garden, whatever  
 was the ambient figure, there wanted not a  
 centre and rule of decussation. Whether the  
 groves and sacred plantations of antiquity were  
 not thus orderly placed, either by *quaternios*,  
 or quintuple ordinations, may favourably be  
 doubted. For since they were so methodical  
 in the constitutions of their temples, as to ob-  
 serve the due situation, aspect, manner, form,  
 and order in architectonical relations, whether  
 they were not as distinct in their groves and  
 plantations about them, in form and species  
 respectively unto their deities, is not without  
 probability of conjecture. And in their groves  
 of the sun this was a fit number by multiplication

In Paradise  
 the tree of  
 knowledge  
 would supply  
 a centre and  
 rule of de-  
 cussation.

<sup>1</sup> Eccles. ii. [5].

<sup>2</sup> *Vet. Testamenti Pharus*

CHAP. I. to denote the days of the year; and might hieroglyphically speak as much, as the mystical statua of Janus<sup>1</sup> in the language of his fingers. And since they were so critical in the number of his horses, the strings of his harp, and rays about his head, denoting the orbs of heaven, 104 the seasons and months of the year, witty idolatry would hardly be flat in other appropriations.

<sup>1</sup> Which king Numa set up, with his fingers so disposed that they numerically denoted 365.—Pliny [*Hist. Nat.* xxxiv. 16].

## CHAPTER II.

105 **N**OR was this only a form of practice in [1]  
 plantations, but found imitation from high antiquity, in sundry artificial contrivances and manual operations. For (to omit the position of squared stones, *cuneatim* or wedgewise, in the walls of Roman and Gothick buildings, and the *lithostrata* or figured pavements of the ancients, which consisted not all of square stones, but were divided into triquetrous segments, honeycombs, and sexangular figures, according to Vitruvius); the squared stones and bricks, in ancient fabricks, were placed after this order, and two above or below, conjoined by a middle stone or *plinthus*; observable in the ruins of *Forum Nervæ*, the mausoleum of Augustus, the pyramid of Cestius, and the sculpture draughts of the larger pyramids of Egypt. And therefore in the draughts of eminent fabricks, painters  
 106 do commonly imitate this order in the lines of their description.

The quincuncial form adopted in the Arts.

It is employed in various contrivances; in architecture,

In the laureat draught of sculpture and pictures, the leaves and foliate works are commonly thus contrived, which is but in imitation of the *pulvinaria*, and ancient pillow-work observable

[2]

CHAP. II. in Ionick pieces, about columns, temples, and altars. To omit many other analogies in architectural draughts; which art itself is founded upon fives<sup>1</sup>, as having its subject and most graceful pieces divided by this number.

[3] The triumphal, oval, and civical crowns of laurel, oak, and myrtle, when fully made, were plaited after this order. And (to omit the crossed crowns of Christian princes; what figure that was which Anastasius described upon the head of Leo the Third; or who first brought in the arched crown); that of Charles the Great (which seems the first remarkably closed crown), was framed after this<sup>2</sup> manner; with an intersection 107 in the middle from the main crossing bars, and the interspaces, unto the frontal circle, continued by handsome net-work plates, much after this order. Whereon we shall not insist, because from greater antiquity, and practice of consecration, we meet with the radiated and starry crown, upon the head of Augustus, and many succeeding emperors. Since the Armenians and Parthians had a peculiar royal cap; and the Grecians, from Alexander, another kind of diadem. And even diadems themselves were but fasciations, and handsome ligatures, about the heads of princes; nor wholly omitted in the mitral crown, which common pictures seem to

in the crowns  
of the  
ancients,

<sup>1</sup> Of a structure five parts, *fundamentum, parietes, apertura, compartitio, tectum*. Leo, Alberti. Five columns, *Tuscan, Doric, Ionic, Corinthian, Compound*. Five different intercolumniations, *pycnostylos, diastylos, systylos, aræostylos, eustylos*. Vitruv. [*De Archit.* iii. 3]

<sup>2</sup> Uti constat ex pergansenâ apud Chifflet, in B. R. Bruxelli, et *Icon. Fam.* Stradæ.

set too upright and forward upon the head of Aaron; worn<sup>1</sup> sometimes singly, or doubly by princes, according to their kingdoms; and no more to be expected from two crowns at once, upon the head of Ptolemy. And so easily made out, when historians tell us, some bound up wounds, some hanged themselves with diadems.

8 The beds of the ancients were corded some- [4]  
what after this fashion: that is, not directly, as their beds,  
ours at present, but obliquely, from side to side,  
and after the manner of net-work; whereby they  
strengthened the *spondæ* or bedsides, and spent  
less cord in the net-work: as is demonstrated  
by Blancanus<sup>2</sup>.

And as they lay in crossed beds, so they sat [5]  
upon seeming cross-legged seats; in which form seats,  
the noblest thereof were framed: observable in lattices,  
the triumphal seats, the *sella curulis*, or Edile  
chairs; in the coins of Cestius, Sylla, and Julius.  
That they sat also crossed-legged, many nobler  
draughts declare; and in this figure the sitting  
gods and goddesses are drawn in medals and  
medallions<sup>3</sup>. And, beside this kind of work in  
retiary and hanging textures, in embroideries,  
and eminent needle-works, the like is obvious  
unto every eye in glass windows. Nor only in  
glass contrivances, but also in lattice and stone  
work, conceived in the temple of Solomon;  
wherein the windows are termed *fenestræ reti-  
culatæ*, or lights framed like nets<sup>4</sup>. And agree-  
109 able unto the Greek expression concerning

<sup>1</sup> Macc. xi. [13].

<sup>3</sup> The larger sort of medals.

<sup>2</sup> Aristot. *Mechan. Quæst.*

<sup>4</sup> δίκτυα. [Ezek. xli. 16.]

CHAP. II. Christ in the Canticles<sup>1</sup>, looking through the nets, which ours hath rendered, "he looketh forth at the windows, showing himself through the lattice;" that is, partly seen and unseen, according to the visible and invisible sides of his nature. To omit the noble reticulate work, in the chapters of the pillars of Solomon, with lilies and pomegranates upon a net-work ground; and the *craticula* or grate through which the ashes fell in the altar of burnt offerings.

- [6] That the net-works and nets of antiquity were little different in the form from ours at present, is confirmable from the nets in the hands of the retiary gladiators, the proper combatants with the *Secutores*. To omit the ancient *conopeion* or gnat-net of the Ægyptians, the inventors of that artifice; the rushy labyrinths of Theocritus; the nosegay nets, which hung from the head under the nostrils of princes; and that uneasy metaphor of *reticulum jecoris*<sup>2</sup>, which some expound the lobe, we the caul above the liver. As for that famous net-work of Vulcan, 110 which inclosed Mars and Venus, and caused that<sup>3</sup> unextinguishable laugh in heaven,—since the gods themselves could not discern it, we shall not pry into it: although why Vulcan bound them, Neptune loosed them, and Apollo should first discover them, might afford no vulgar mythology. Herald's have not omitted this order or imitation thereof, while they symbolically adorn their scuteheons with maseles,

<sup>1</sup> Cant. ii. [9].

<sup>2</sup> In Leviticus [iii. 4, 10, 15].

<sup>3</sup> Ἀσβεστος δ' ἄρ' ἐνῶρτο γίλως. Hom. [Od. viii. 326].

fusils, and saltyres, and while they dispose the figures of ermines, and vaired coats in this quincuncial method<sup>1</sup>. CHAP. II.

The same is not forgot by lapidaries, while [7] they cut their gems pyramidally, or by equicrural triangles. Perspective pictures, in their base, horizon, and lines of distances, cannot escape these rhomboidal decussions. Sculptors in their strongest shadows, after this order do draw their double hatches. And the very Americans do naturally fall upon it, in their neat and curious textures, which is also observed in the elegant artifices of Europe. But this is no law unto the woof of the neat retiary spider, 11 which seems to weave without transversion, and by the union of right lines to make out a continual surface, which is beyond the common art of textury, and may still nettle Minerva<sup>2</sup>, the goddess of that mystery. And he that shall hatch the little seeds, either found in small webs, or white round eggs, carried under the bellies of some spiders, and behold how at their first production in boxes, they will presently fill the same with their webs, may observe the early and untaught finger of nature, and how they are natively provided with a stock sufficient for such texture.

The rural charm against dodder, tetter, and [8] strangling weeds, was contrived after this order, while they placed a chalked tile at the four in the rural charm against dodder;

<sup>1</sup> "De armis scaccatis, masculatis, invectis, fuselatis," vide Spelman, *Aspilog.*; et Upton, cum erudit. Byssæo.

<sup>2</sup> As in the contention between Minerva and Arachne. ~ [Ovid, *Met.* vi. 145.]



CHAP. II. corners, and one in the middle of their fields : which, though ridiculous in the intention, was rational in the contrivance, and a good way to diffuse the magick through all parts of the area.

[9] Somewhat after this manner they ordered the little stones in the old game of *Pentalithismus*,<sup>1</sup> in the game of *Pentalithismus*; or casting up five stones to catch them on the back of their hand. And with some resemblance hereof, the *proci* or prodigal paramours disposed their men, when they played at *Penelope*<sup>1</sup>. For being themselves an hundred and eight, they set fifty-four stones on either sides, and one in the middle, which they called *Penelope* ; which he that hit was master of the game.

[10] In chess boards and tables we yet find pyramids and squares. I wish we had their true and ancient description, far different from ours, or the *chet mat* of the Persians, which might continue some elegant remarkables, as being an invention as high as *Hermes* the secretary of *Osiris*, figuring<sup>2</sup> the whole world, the motion of the planets, with eclipses of sun and moon.

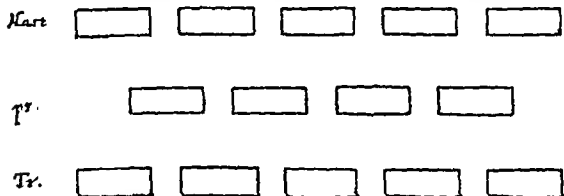
[11] Physicians are not without the use of this decussation in several operations, in ligatures and union of dissolved continuities. Mechanics make use hereof in forcipal organs, and instruments of incision ; wherein who can but magnify the power of decussation, inservient to contrary<sup>113</sup> ends, solution and consolidation, union and division, illustrable from *Aristotle* in the old *nucifragium*, or nutcracker, and the instruments of evulsion, compression, or incision ; which

<sup>1</sup> In *Eustathius*, his Comment upon *Homer*.

<sup>2</sup> *Plato*.

consisting of two *vetes*, or arms, converted towards each other, the innitency and stress being made upon the *hypomochlion*, or fulcrum in the decussation, the greater compression is made by the union of two impulsors.

The Roman *battalia*<sup>1</sup> was ordered after this [12] manner, whereof as sufficiently known, Virgil hath left but an hint, and obscure intimation. For thus were the maniples and cohorts of the *hastati*, *principes*, and *triarii* placed in their bodies, wherein consisted the strength of the Roman battle. By this ordination they readily fell into



each other; the *hastati* being pressed, handsomely retired into the intervals of the *principes*, these into that of the *triarii*, which making as it were a new body, might jointly renew the battle, wherein consisted the secret of their successes. And therefore it was remarkably<sup>2</sup> singular in the battle of Africa, that Scipio, fearing a rout from the elephants of the enemy,

<sup>1</sup> In the disposeure of the legions in the wars of the republick, before the division of the legion into ten cohorts by the Emperors. Salmas. in his *Epistole à Monsieur de Peyresc. De Re Militari Romanorum*.

<sup>2</sup> Polybius [xv. 2]; Appianus [lib. viii. §§ 124-6].

CHAP. II. left not the *principes* in their alternate distances, whereby the elephants, passing the vacuities of the *hastati*, might have run upon them, but drew his battle into right order, and leaving the passages bare, defeated the mischief intended by the elephants. Out of this figure were made two remarkable forms of battle, the *cuneus* and *forceps*, or the shear and wedge battles, each made of half a *rhombus*, and but differenced by position. The wedge invented to break or work into a body, the *forceps* to environ and defeat the power thereof, composed out of the selectest soldiery, and disposed into the form of a V, wherein receiving the wedge, it enclosed it on both sides. After this form the famous Narses<sup>1</sup> ordered his battle against the Franks, and by this figure the Almans were enclosed, and cut in pieces.

[13] The *rhombus* or lozenge-figure so visible in this order, was also a remarkable form of battle in the Grecian cavalry<sup>2</sup>, observed by the Thessalians, and Philip king of Macedon, and frequently by the Parthians; as being most ready to turn every way, and best to be commanded, as having its ductors or commanders at each angle.

[14] The Macedonian phalanx (a long time thought invincible), consisted of a long square. For though they might be sixteen in rank and file, yet when they shut close, so that the sixth pike advanced before the first rank, though the number might be square, the figure was oblong, answerable unto the quincuncial quadrature of

in the  
Macedonian  
phalanx;

<sup>1</sup> Agathias. Ammianus, [xxvii. 21]

<sup>2</sup> Ælian. Tact.

Curtius. According to this square, Thucydides CHAP. II.  
delivers, the Athenians disposed their battle  
against the Lacedemonians, brickwise<sup>1</sup>, and by  
the same word the learned Guellius expoundeth  
the *quadrate* of Virgil, after the form of a brick  
or tile<sup>2</sup>.

And as the first station and position of trees, [15]  
so was the first habitation of men, not in round the ancient  
cities, as of later foundation; for the form of cities built  
Babylon the first city was square, and so shall in square or  
also be the last, according to the description of parallelo-  
the holy city in the Apocalypse. The famous gram;  
pillars of Seth, before the flood, had also the  
like foundation<sup>3</sup>, if they were but antediluvian  
obelisks, and such as Cham and his Egyptian  
race imitated after the flood.

But Nineveh, which authors acknowledge to [16]  
have exceeded Babylon, was of a longilateral  
7 figure<sup>4</sup>, ninety-five furlongs broad, and an hun-  
dred and fifty long, and so making about sixty  
miles in circuit, which is the measure of three  
days' journey, according unto military marches,  
or castrensial mansions. So that if Jonas  
entered at the narrower side, he found enough  
for one day's walk to attain the heart of the  
city, to make his proclamation. And if we  
imagine a city extending from Ware to London,  
the expression will be moderate of sixscore  
thousand infants, although we allow vacuities,  
fields, and intervals of habitation; as there

<sup>1</sup> ἐν πλασίῳ.—[Thucyd. vi. 67.]

<sup>2</sup> "Secto via limite quadret."—*Comment. in Virgil.*

<sup>3</sup> Obelisks, being erected upon a square base.

<sup>4</sup> Diod. Sic. [ii. 7].

CHAP. II. needs must be when the monument of Ninus took up no less than ten furlongs.

[17] And, though none of the seven wonders, yet in the labyrinth of Crete, probably in the ark, the table of shewbread, and those of the law, a noble piece of antiquity, and made by a copy exceeding all the rest, had its principal parts disposed after this manner; that is, the Labyrinth of Crete, built upon a long quadrate, containing five large squares; communicating by right inflexions, terminating in the centre of the middle square, and lodging of the Minotaur, if we conform unto the description of the elegant medal thereof in Agostino<sup>1</sup>. And though in many accounts we reckon grossly by the square, yet is that very 118 often to be accepted as a long-sided quadrate, which was the figure of the ark of the covenant, the table of the shewbread, and the stone wherein the names of the twelve tribes were engraved, that is, three in a row, naturally making a longilateral figure, the perfect quadrate being made by nine.

[18] What figure the stones themselves maintained, tradition and Scripture are silent, yet lapidaries in precious stones affect a table or long square, and in such proportion, that the two lateral, and also the three inferior tables are equal unto the superior; and the angles of the lateral tables contain and constitute the *hypothenusæ*, or broader sides subtending.

[19] That the tables of the law were of this figure, general imitation and tradition hath confirmed. Yet are we unwilling to load the shoulders of Moses with such massy stones, as some pictures lay upon them; since it is plainly delivered that

<sup>1</sup> Antonio Agostino, *Delle Medaglie*.

he came down with them in his hand; since CHAP. II.  
 119 the word strictly taken implies no such massy hewing, but cutting, and fashioning of them into shape and surface; since some will have them emeralds, and if they were made of the materials of Mount Sinai, not improbable that they were marble; since the words were not many, the letters short of seven hundred, and the tables, written on both sides, required no such capacity.

The beds of the ancients were different from [20] ours at present, which are almost square, being framed oblong, and about a double unto their breadth; not much unlike the area, or bed of this quincuncial quadrate. The single beds of Greece were six feet<sup>1</sup> and a little more in length, three in breadth; the giant-like bed of Og, which had four cubits of breadth, nine and a half in length, varied not much from this proportion. The funeral bed of King Cheops, in the greater pyramid, which holds seven in length, and four feet in breadth, had no great deformity from this measure; and whatsoever were the breadth, the length could hardly be less, of the tyrannical bed of Procrustes, since in a shorter measure he 120 had not been fitted with persons for his cruelty of extension. But the old sepulchral bed, or Amazonian tomb<sup>2</sup> in the market place of Megara, was in the form of a lozenge, readily made out by the composure of the body; for the arms not lying fasciated or wrapt up after the Grecian manner, but in a middle distension, the including lines will strictly make out that figure.

<sup>1</sup> Aristot. *Mechan.* [c. 126].    <sup>2</sup> Plut. *in Vit. Thes.* [c. xxvii].

Several beds  
of the  
ancients  
mentioned.

## CHAPTER III.

[1] The quincuncial form observable in many of the works of nature. NOW although this elegant ordination of 12 vegetables hath found coincidence or imitation in sundry works of art, yet is it not also destitute of natural examples; and, though overlooked by all, was elegantly observable, in several works of nature.

[2] Could we satisfy ourselves in the position of the lights above, or discover the wisdom of that order so invariably maintained in the fixed stars of heaven; could we have any light, why the stellary part of the first mass separated into this order, that the girdle of Orion should ever maintain its line, and the two stars in Charles' wain never leave pointing at the pole star; we might abate the Pythagorical musick of the spheres, the sevenfold pipe of Pan, and the strange cryptography of Gaffarel in his starry book of heaven.

[3] But, not to look so high as heaven, or the 123 single quincunx of the *Hyades* upon the head of Taurus, the triangle, and remarkable *crusero* about the foot of the Centaur,—observable rudiments there are hereof in subterraneous con-

To pass over the constellations, we find it in gypsum.

cretions, and bodies in the earth; in the *gypsum* CHAP. III.  
 or *talcum rhomboides*, in the *savaginites*, or In the  
 honeycomb stone, in the *asteria* and *astroites*, *asteria*;  
 and in the crucigerous stone of S. Jago of  
 Gallicia.

The same is observably effected in the *jülus*, [4]  
 catkins, or pendulous excrescencies of several in the *jüli* of  
 trees; of walnuts, alders, and hazels, which several  
 hanging all the winter, and maintaining their plants; in  
 network close, by the expansion thereof are the the flowers  
 early foretellers of the spring: discoverable also and seed-  
 in long pepper, and elegantly in the *jülus* of heads of  
*calamus aromaticus*, so plentifully growing with others; in  
 us, in the first palms of willows, and in the some fruits;  
 flowers of sycamore, *petasites*, *asphodelus*, and in the net-  
*blattaria*, before explication. After such order work of some  
 123 stand the flowery branches in our best spread sea-weeds.  
*verbascum*, and the seeds about the spicous  
 head or torch of *thapsus barbatus*, in as fair  
 a regularity as the circular and wreathed order  
 will admit, which advanceth one side of the  
 square, and makes the same rhomboidal. In  
 the squamous heads of scabious knapweed, and  
 the elegant *jacea pinea*, and in the scaly com-  
 posture of the oak rose<sup>1</sup>, which some years most  
 aboundeth. After this order hath nature planted  
 the leaves in the head of the common and  
 prickled artichoke, wherein the black and  
 shining flies do shelter themselves, when they  
 retire from the purple flower about it. The

<sup>1</sup> *Capitula squamata quercum*, Baulini, whereof though  
 he saith "perraro reperiuntur, bis tantum invenimus;" yet we  
 find them commonly with us and in great numbers.



CHAP. III. same is also found in the pricks, sockets, and impressions of the seeds, in the pulp or bottom thereof; wherein do elegantly stick the fathers of their mother<sup>1</sup>: to omit the quincuncial specks on the top of the misle-berry, especially that which grows upon the *tilia*, or lime tree; and the remarkable disposeure of those yellow fringes about the purple pestil of Aaron, and elegant clusters of dragons, so peculiarly secured by nature, with an umbrella or skreening leaf about 12. them.

- [5] The spongy leaves of some sea wracks, fucus, oaks, in their several kinds, found about the shore<sup>2</sup>, with ejectments of the sea, are overwrought with net-work elegantly containing this order: which plainly declareth the naturality of this texture; and how the needle of nature delighteth to work, even in low and doubtful vegetations.

- [6] The *arbustetum* or thicket on the head of the teazel, may be observed in this order: and he that considereth that fabrick so regularly palisadoed, and stemmed with flowers of the royal colour, in the house of the solitary maggot<sup>3</sup> may find the seraglio of Solomon; and contemplating the calicular shafts, and uncous disposeure of their extremities, so accommodable unto the office of abstersion, not condemn as wholly improbable the conceit of those who accept it for

In teazel,  
bur, thistle,  
and elder.

<sup>1</sup> *Anthol. Græc.* inter epigrammata γριφώδη. Ἐίδον ἐμῶν λαγόνων μητρός ἔχω πατέρα [xiv. 58].

<sup>2</sup> Especially the *porus cervinus*, *imperfati*, *sporosa*, or alga πλατυκέρας, Bauhini.

<sup>3</sup> There being a single maggot found almost in every head.

the herb *borith*<sup>1</sup>. Where, by the way, we could  
 with much enquiry never discover any trans-  
 25 have kept them long in their proper houses and  
 boxes. Where some, wrapt up in their webs,  
 have lived upon their own bowels from Septem-  
 ber unto July.

In such a grove do walk the little creepers [7]  
 about the head of the burr; and such an order  
 is observed in the aculeous prickly plantation  
 upon the heads of several common thistles,  
 remarkably in the notable palisadoes about the  
 flower of the milk thistle; and he that enquireth  
 into the little bottom of the globe thistle, may  
 find that gallant bush arise from a scalp of like  
 disposure.

The white umbrella, or medical bush of elder, [8]  
 is an epitome of this order, arising from five  
 main stems quincuncially disposed, and toler-  
 ably maintained in their subdivisions. To omit  
 the lower observations in the seminal spike of  
 mercury wild, and plantain.

Thus hath nature ranged the flowers of sant- [9]  
 foyn, and French honeysuckle, and somewhat  
 after this manner hath ordered the bush in  
 126 Jupiter's beard, or houseleek, which old super-  
 stition set on the tops of houses, as a defensa-  
 tive against lightning and thunder. The like  
 in fenny seagreen, or the water soldier<sup>2</sup>, which,  
 though a military name from Greece, makes out  
 the Roman order.

A like ordination there is in the favaginous [10]

<sup>1</sup> Jer. ii. 22; Mal. iii. 2.

<sup>2</sup> *Stratiotes* [στρατιώτης].

CHAP. III. sockets, and lozenge seeds of the noble flower  
 In sun- of the sun; wherein in lozenge-shaped boxes  
 flower, fir- nature shuts up the seeds, and balsam which is  
 apples, &c. about them.

[11] But the fir and pine tree from their fruits do naturally dictate this position; the rhomboidal protuberances in pine apples maintaining this quincuncial order unto each other, and each rhombus in itself. Thus are also disposed the triangular foliations in the conical fruit of the fir tree orderly shadowing and protecting the winged seeds below them.

[12] The like so often occurreth to the curiosity of observers, especially in spicated seeds and flowers, that we shall not need to take in the single quincunx of *Fuchsins* in the growth of <sup>127</sup> the male fern, the seedy dispose of *gramen ischemon*, and the trunk or neat reticulate work in the cod of the sachel palm.

[13] For even in very many round stalked plants, the leaves are set after a quintuple ordination, the first leaf answering the fifth in lateral disposition. Wherein the leaves successively rounding the stalk, in four, at the furthest, the compass is absolved, and the fifth leaf or sprout returns to the position of the other fifth before it; as in accounting upward is often observable in furze, pellitory, ragweed, the sprouts of oaks and thorns, upon pollards <sup>1</sup>, and very remarkably in the regular dispose of the rugged excrescencies in the yearly shoots of the pine.

[14] But in square stalked plants, the leaves stand

<sup>1</sup> Upon pollard oak and thorns.

respectively unto each other, either in cross or CHAP. III.  
decussation to those above or below them, arising  
at cross positions; whereby they shadow not  
each other, and better resist the force of winds,  
128 which in a parallel situation, and upon square  
stalks, would more forcibly bear upon them.

And, to omit how leaves and sprouts, which [15]  
compass not the stalk, are often set in a *rhomboides*, and making long and short diagonals, to  
stand like the legs of quadrupeds when they  
go; nor to urge the thwart enclosure and furd-  
ling of flowers and blossoms before explications,  
as in the multiplied leaves of piony; and the  
*chiasmus* in five-leaved flowers, while one lies  
wrapt about the staminous beards, the other  
four obliquely shutting and closing upon each  
other, and how even flowers which consist of  
four leaves, stand not ordinarily in three and  
one, but two, and two crosswise, unto the *stylus*;  
even the autumnal buds, which await the return  
of the sun, do after the winter solstice multiply  
their calicular leaves, making little rhombuses,  
and net-work figures, as in the sycamore and  
lilack.

The like is discoverable in the original pro- [16]  
duction of plants, which first putting forth two  
129 leaves, those which succeed bear not over each  
other, but shoot obliquely or crosswise, until the  
stalk appeareth, which sendeth not forth its  
first leaves without all order unto them, and he  
that from hence can discover in what position  
the two first leaves did arise, is no ordinary  
observer.

CHAP. III. Where, by the way, he that observeth the

[17] rudimental spring of seeds, shall find strict rule, although not after this order. How little is required unto effectual generation, and in what diminutives the plastick principle lodgeth is exemplified in seeds, wherein the greater mass affords so little comproduction. In beans the leaf and root sprout from the germen, the main sides split, and lie by; and in some pulled up near the time of blooming, we have found the pulpous sides entire or little wasted. In acorns the nib dilating splitteth the two sides, which sometimes lie whole, when the oak is sprouted two handfuls. In lupines these pulpy sides do sometimes arise with the stalk in the resemblance of two fat leaves. Wheat and rye will grow up, if after they have shot some tender roots, the <sup>130</sup> adhering pulp be taken from them. Beans will prosper though a part be cut away, and so much set as sufficeth to contain and keep the germen close. From this superfluous pulp, in unkindly and wet years, may arise that multiplicity of little insects, which infest the roots and sprouts of tender grains and pulses.

[18] In the little nib or fructifying principle, the motion is regular, and not transvertible, as to make that ever the leaf, which nature intended the root; observable from their conversion, until they attain their right position, if seeds be set inversedly.

[19] In vain we expect the production of plants from different parts of the seed; from the same corculum or little original proceed both germi-

In the rudimental spring of seeds.

The process of germination considered.

nations; and in the power of this slender particle lie many roots and sprouts, that though the same be pulled away, the generative particle will renew them again, and proceed to a perfect plant; and malt may be observed to grow, though the cummes be fallen from it. CHAP. III.

131 The seminal nib hath a defined and single [20] place, and not extended unto both extremes. And therefore many too vulgarly conceive that barley and oats grow at both ends; for they arise from one punctilio or generative nib, and the spear sliding under the husk, first appearing nigh the top. But in wheat and rye being barc, the sprouts are seen together. If barley unhulled would grow, both would appear at once. But in this and oatmeal the nib is broken away, which makes them the milder food and less apt to raise fermentation in decoctions.

Men taking notice of what is outwardly visible, [21] conceive a sensible priority in the root. But as they begin from one part, so they seem to start and set out upon one signal of nature. In beans yet soft, in peas while they adhere unto the cod, the rudimental leaf and root are discoverable. In the seeds of rocket and mustard, sprouting in glasses of water, when the one is manifest, the other is also perceptible. In muddy waters  
132 apt to breed duckweed, and periwinkles, if the first and rudimental strokes of duckweed be observed, the leaves and root anticipate not each other. But in the date-stone the first sprout is neither root nor leaf distinctly, but both

CHAP. III. together; for the germination being to pass through the narrow navel and hole about the midst of the stone, the generative germ is fain to enlengthen itself, and shooting out about an inch, at that distance divideth into the ascending and descending portion.

[22] And though it be generally thought, that seeds will root at that end, where they adhere to their originals, and observable it is that the nib sets most often next the stalk, as in grains, pulses, and most small seeds:—yet is it hardly made out in many greater plants. For in acorns, almonds, pistachios, walnuts, and acuminated shells, the germ puts forth at the remotest part of the pulp. And therefore to set seeds in that posture, wherein the leaf and roots may shoot right without contortion or forced circumvolution, which might <sup>133</sup> render them strongly rooted, and straighter, were a criticism in agriculture. And nature seems to have made some provision hereof in many from their figure, that as they fall from the tree they may lie in positions agreeable to such advantages.

[23] Beside the open and visible testicles of plants, the seminal powers lie in great part invisible, while the sun finds polypody in stone-walls, the little stinging nettle and nightshade in barren sandy highways, scurvy-grass in Greenland, and unknown plants in earth brought from remote countries. Beside the known longevity of some trees, what is the most lasting herb, or seed, seems not easily determinable. Mandrakes upon known account have lived near an hundred years. Seeds found in wildfowls' gizzards

have sprouted in the earth. The seeds of mar- CHAP. III.  
 joram and *stramonium* carelessly kept, have  
 grown after seven years. Even in garden plots  
 long fallow, and digged up, the seeds of *blattaria*  
 134 and yellow henbane, after twelve years' burial,  
 have produced themselves again.

That bodies are first spirits Paracelsus could [24]  
 affirm, which in the maturation of seeds and  
 fruits, seems obscurely implied by Aristotle<sup>1</sup>,  
 when he delivereth, that the spirituous parts are  
 converted into water, and the water into earth;  
 and attested by observation in the maturative  
 progress of seeds, wherein at first may be dis-  
 cerned a flatuous distension of the husk, after-  
 wards a thin liquor, which longer time digesteth  
 into a pulp or kernel, observable in almonds  
 and large nuts. And some way answered in  
 the progressional perfection of animal semina-  
 tion, in its spermatical maturation from crude  
 pubescency unto perfection. And even that  
 seeds themselves in their rudimental discoveries  
 appear in foliaceous surcles, or sprouts within  
 their coverings, in a diaphanous jelly, before  
 deeper inerassation, is also visibly verified in  
 cherries, acorns, plums.

From seminal considerations, either in refer- [25]  
 ence unto one mother, or distinction from  
 135 animal production, the Holy Scripture describeth  
 the vegetable creation; and while it divideth  
 plants but into herb and tree, though it seemeth  
 to make but an accidental division, from magni-  
 tude, it tacitly containeth the natural distinction

<sup>1</sup> In *Met.* [iv. 3] cum Caeo.



CHAP. III. of vegetables, observed by herbarists, and comprehending the four kinds. For since the most natural distinction is made from the production of leaf or stalk, and plants after the two first seminal leaves, do either proceed to send forth more leaves, or a stalk, and the folious and stalky emission distinguisheth herbs and trees. In a large acception it compriseth all vegetables: for the *frutex* and *suffrutex* are under the progression of trees: they stand authentically differenced but from the accidents of the stalk.

[26] The equivocal production of things under undiscerned principles, makes a large part of generation, though they seem to hold a wide univocacy in their set and certain originals, while almost every plant breeds its peculiar insect, most a butterfly, moth, or fly, wherein the oak seems to contain the largest seminality, while the julus<sup>1</sup>, oak-apple, pill, woolly tuft, foraminous roundles upon the leaf, and grapes<sup>136</sup> underground make a fly with some difference. The great variety of flies lies in the variety of their originals; in the seeds of caterpillars or cankers there lieth not only a butterfly or moth, but if they be sterile or untimely cast, their production is often a fly, which we have also observed from corrupted and mouldered eggs both of hens and fishes; to omit the generation of bees out of the bodies of dead heifers, or what is strange, yet well attested, the pro-

Digression,  
on the pro-  
duction of  
one creature  
from the  
body of  
another.

Explained  
of the  
*ichneumo-  
nida*, and  
*entozoa*.

<sup>1</sup> These and more to be found upon our oaks; not well described by any till the edition of *Theatrum Botanicum*.

duction of eels in the backs of living cods and perches<sup>1</sup>. CHAP. III.

The exiguity and smallness of some seeds [27] extending to large productions, is one of the magnalities of nature, somewhat illustrating the work of the creation, and vast production from nothing. The true<sup>2</sup> seeds of cypress and rampions are indistinguishable by old eyes. Of the seeds of tobacco a thousand make not one grain. The disputed seeds of hartstongue and maidenhair, require a great number. From such undiscernable seminalities arise spontaneous productions. He that would discern the rudimental stroke of a plant, may behold it in the original of duckweed, at the bigness of a pin's point, from convenient water in glasses, wherein a watchful eye may also discover the puncticular originals of periwinkles and gnats.

That seeds of some plants are less than any [28] animals, seems of no clear decision; that the biggest of vegetables exceedeth the biggest of animals, in full bulk, and all dimensions, admits exception in the whale, which in length and above-ground-measure, will also contend with tall oaks. That the richest odour of plants, surpasseth that of animals, may seem of some doubt, since animal-musk seems to excel the vegetable, and we find so noble a scent in the tulip-fly, and goat-beetle<sup>3</sup>.

<sup>1</sup> Schoneveldus, *De Pisc.*

<sup>2</sup> Doctissim. Laurenberg, *Hort.*

<sup>3</sup> The long and tender green *capricornus*, rarely found; we could never meet with but two.

CHAP. III. Now whether seminal nibs hold any sure  
 [29] proportion unto seminal enclosures, why the  
 form of the germ doth not answer the figure  
 of the enclosing pulp, why the nib is seated  
 upon the solid, and not the channelled side of  
 the seed as in grains, why since we often meet <sup>13</sup>  
 with two yolks in one shell, and sometimes one  
 egg within another, we do not oftener meet with  
 two nibs in one distinct seed, why since the  
 eggs of a hen laid at one course, do commonly  
 outweigh the bird, and some moths coming out  
 of their cases, without assistance of food, will  
 lay so many eggs as to outweigh their bodies,  
 trees rarely bear their fruit in that gravity or  
 proportion: whether in the germination of  
 seeds, according to Hippocrates, the lighter  
 part ascendeth, and maketh the sprout, the  
 heaviest tending downward frameth the root,  
 since we observe that the first shoot of seeds  
 in water will sink or bow down at the upper and  
 leafing end; whether it be not more rational  
 Epicurism to contrive whole dishes out of the  
 nibs and spirited particles of plants, than from  
 the gallatures and treddles of eggs, since that  
 part is found to hold no seminal share in oval  
 generation, are queries which might enlarge,  
 but must conclude this digression.

[30] And though not in this order, yet how Nature <sup>135</sup>  
 delighteth in this number, and what consent and  
 co-ordination there is in the leaves and parts of  
 flowers, it cannot escape our observation in no  
 small number of plants. For the calicular or  
 supporting and closing leaves, do answer the

The number  
 five exists  
 in many  
 instances, in  
 the leaves  
 and parts  
 of flowers,

number of the flowers, especially such as exceed not the number of swallows' eggs<sup>1</sup>; as in violets, stitchwort, blossoms, and flowers of one leaf have often five divisions, answered by a like number of calicular leaves, as *gentianella*, *convolvulus*, bell flowers. In many, the flowers, blades, or staminous shoots and leaves are all equally five, as in cockle, mullein, and *blattaria*; wherein the flowers before explication are pentagonally wrapped up with some resemblance of the *blatta* or moth, from whence it hath its name. But the contrivance of nature is singular in the opening and shutting of bindweeds performed by five inflexures, distinguishable by pyramidal figures, and also different colours.

140 The rose at first is thought to have been of [31] five leaves, as it yet groweth wild among us, but in the most luxuriant, the calicular leaves do still maintain that number. But nothing is more admired than the five brethren of the rose, and the strange disposure of the appendices or beards, in the calicular leaves thereof, which in despair of resolution is tolerably salved from this contrivance, best ordered and suited for the free closure of them before explication. For those two which are smooth, and of no beard, are contrived to lie undermost, as without prominent parts, and fit to be smoothly covered; the other two which are beset with beards on either side, stand outward and uncovered, but the fifth or half-bearded leaf is covered on the bare side,

<sup>1</sup> Which exceed not five.

CHAP. III. but on the open side stands free, and bearded like the other.

[32] Besides, a large number of leaves have five divisions, and may be circumscribed by a pentagon or figure of five angles, made by right lines from the extremity of their leaves, as in maple, vine, fig-tree; but five-leaved flowers are <sup>141</sup> commonly disposed circularly about the stylus, according to the higher geometry of nature, dividing a circle by five radii, which concur not to make diameters, as in quadrilateral and sexangular intersections.

[33] Now the number of five is remarkable in every circle, not only as the first spherical number, but the measure of spherical motion. For spherical bodies move by fives, and every globular figure placed upon a plane, in direct volutation, returns to the first point of contact in the fifth touch, accounting by the axes of the diameters or cardinal points of the four quarters thereof. And before it arriveth unto the same point again, it maketh five circles equal unto itself, in each progress from those quarters absolving an equal circle.

[34] By the same number doth nature divide the circle of the sea star, and in that order and number disposeth these elegant semicircles, or dental sockets and eggs in the sea hedgehog. And no mean observation hereof there is in the mathematicks of the neatest retiary spider, <sup>142</sup> which concluding in forty-four circles, from five semidiameters beginneth that elegant texture.

[35] And after this manner doth lay the founda-

Other  
instances of  
the number  
five.

tion of the circular branches of the oak, which CHAP III  
being five-cornered in the tender annual sprouts,  
and manifesting upon incision the signature of  
a star, is after made circular, and swelled into  
a round body; which practice of nature is  
become a point of art, and makes two prob-  
lems in Euclid's. But the bramble which sends  
forth shoots and prickles from its angles, main-  
tains its pentagonal figure, and the unobserved  
signature of a handsome porch within it. To  
omit the five small buttons dividing the circle of  
the ivy berry, and the five characters in the  
winter stalk of the walnut, with many other  
observables, which cannot escape the eyes of  
signal discerners; such as know where to find  
Ajax his name in *dolphium*, or Aaron's mitre  
in henbane.

CHAP. III. *bus* of the sea poult, or werrel, on either side the spine.

[37] The sexangular cells in the honeycombs of bees are disposed after this order (much there is not of wonder in the confused houses of pismires, though much in their busy life and actions), more in the edificial palaces of bees and monarchical spirits, who make their combs <sup>144</sup> six cornered, declining a circle (whereof many stand not close together, and completely fill the area of the place); but rather affecting a six-sided figure, whereby every cell affords a common side unto six more, and also a fit receptacle for the bee itself, which gathering into a cylindrical figure, aptly enters its sexangular house, more nearly approaching a circular figure, than either doth the square or triangle; and the combs themselves so regularly contrived, that their mutual intersections make three lozenges at the bottom of every cell; which severally regarded make three rows of neat rhomboidal figures, connected at the angles, and so continue three several chains throughout the whole comb.

[38] As for the *favago*, found commonly on the sea shore, though named from a honeycomb, it but rudely makes out the resemblance, and better agrees with the round cells of humble bees. He that would exactly discern the shape of a bee's mouth, needs observing eyes, and good augmenting glasses; wherein is discoverable <sup>145</sup> one of the neatest pieces in nature; and he must have a more piercing eye than mine who finds out the shape of bulis' heads in the guts of

drones pressed out behind, according to the experiment of Gomesius<sup>1</sup>, wherein, notwithstanding, there seemeth somewhat which might incline a pliant fancy to credulity of similitude. CHAP. III.

A resemblance hereof there is in the orderly and rarely disposed cells made by flies and insects, which we have often found fastened about small sprigs, and in those cottonary and woolly pillows which sometimes we meet with fastened unto leaves, there is included an elegant net-work texture, out of which come many small flies. And some resemblance there is of this order in the eggs of some butterflies and moths, as they stick upon leaves and other substances, which being dropped from behind, nor directed by the eye, doth neatly declare how nature geometrized and observeth order in all things.

<sup>146</sup> A like correspondency in figure is found in the skins and outward teguments of animals, whereof a regardable part are beautiful by this texture. As the backs of several snakes and serpents, elegantly remarkable in the *aspis*, and the dart-snake, in the *chiasmus* and larger decussations upon the back of the rattle-snake, and in the close and finer texture of the *mater formicarum*, or snake that delights in ant hills; whereby upon approach of outward injuries, they can raise a thicker phalanx on their backs, and handsomely contrive themselves into all kinds of flexures: whereas their bellies are commonly covered with smooth semicircular divisions, as

In the eyes, eggs, and cells of insects, in the skins of snakes, the tail of the beaver.

<sup>1</sup> Gom. de Sale.



CHAP. III. best accommodable unto their quick and gliding motion.

- [41] This way is followed by nature in the peculiar and remarkable tail of the beaver, wherein the scaly particles are disposed somewhat after this order, which is the plainest resolution of the wonder of Bellonius, while he saith, with incredible artifice hath nature framed the tail or oar of the beaver : where by the way we cannot <sup>147</sup> but wish a model of their houses, so much extolled by some describers : wherein since they are so bold as to venture upon three stages, we might examine their artifice in the contignations, the rule and order in the compartitions ; or whether that magnified structure be any more than a rude rectangular pile or mere hovel-building.

- [42] Thus works the hand of nature in the feathery plantation about birds. Observable in the skins of the breast <sup>1</sup>, legs, and pinions of turkeys, geese, and ducks, and the oars or finny feet of water-fowl : and such a natural net is the scaly covering of fishes, of mullets, carps, tenches, &c., even in such as are excoriable and consist of smaller scales, as brets, soles, and flounders. The like reticulate grain is observable in some Russia leather. To omit the ruder figures of the *ostration*, the triangular or cunny-fish, or the pricks of the sea-porcupine.

- [43] The same is also observable in some part of

<sup>1</sup> Elegantly conspicuous on the inside of the stripped skins of the dive-fowl, of cormorant, gosshonder [*goosander*], weasel, loon, &c.

In the skins  
and feet of  
birds, the  
scales of fish,  
the skin of  
man, &c.

148 the skin of man, in habits of neat texture, and therefore not unaptly compared unto a net : we shall not affirm that from such grounds the Egyptian embalmers imitated this texture, yet in their linen folds the same is still observable among their neatest mummies, in the figures of Isis and Osyris, and the tutelary spirits in the Bembine table. Nor is it to be overlooked how Orus, the hieroglyphick of the world, is described in a net-work covering, from the shoulder to the foot. And (not to enlarge upon the cruciated character of Trismegistus, or banded crosses<sup>1</sup>, so often occurring in the needles of Pharaoh, and obelisks of antiquity), the *Statuæ Isiacæ*, and little idols, found about the mummies, do make a decussation of Jacob's cross, with their arms, like that on the head of Ephraim and Manasses, and this *decussis* is also graphically described between them.

This reticulate or net-work was also consider- [44]  
able in the inward parts of man, not only from the first *subtegmen* or warp of his formation, 149 but in the netty *fibres* of the veins and vessels of life ; wherein according to common anatomy the right and transverse *fibres* are decussated by the oblique *fibres* ; and so must frame a reticulate and quincuncial figure by their obliquations, emphatically extending that elegant expression of Scripture "Thou hast curiously embroidered me," thou hast wrought me up after the finest way of texture, and as it were with a needle.

In many of the internal membranes of man and animals.

<sup>1</sup> *Cruces ansatæ*, being held by a finger in the circle.

- CHAP. III. Nor is the same observable only in some  
 [45] parts, but in the whole body of man, which upon the extension of arms and legs, doth make out a square, whose interscction is at the genitals. To omit the fantastical quincunx in Plato of the first hermaphrodite or double man, united at the loins, which Jupiter after divided.
- [46] A rudimental resemblance hereof there is in the cruciated and rugged folds of the *reticulum*, or net-like ventricle of ruminating horned animals, which is the second in order, and culinarily called the honeycomb. For many divisions there are in the stomach of several 15 animals: what number they maintain in the *scarus* and ruminating fish, common description or our own experiment hath made no discovery; but in the ventricle of porpuses there are three divisions; in many birds a crop, gizzard, and little receptacles before it; but in cornigerous animals, which chew the cud, there are no less than four<sup>1</sup> of distinct position and office.
- [47] The *reticulum* by these crossed cells makes a further digestion in the dry and exsuccous part of the aliment received from the first ventricle. For at the bottom of the gullet there is a double orifice: what is first received at the mouth descendeth into the first and greater stomach, from whence it is returned into the mouth again; and after a fuller mastication,

<sup>1</sup> Μεγάλη κοιλία, κεκρύφαλος, ἐχῆνος, ἡνυστρον.—Aristot. [*De Part. Anim.* iii. 14]. "Magnus venter, reticulum, omasus, abomasus."—Gaza.

and salivous mixture, what part thereof descendeth again in a moist and succulent body, slides down the softer and more permeable orifice, into the *omasus* or third stomach; and from thence  
 151 conveyed into the fourth, receives its last digestion. The other dry and exsuccous part after rumination by the larger and stronger orifice beareth into the first stomach, from thence into the *reticulum*, and so progressively into the other divisions. And therefore in calves newly calved, there is little or no use of the two first ventricles, for the milk and liquid aliment slippeth down the softer orifice, into the third stomach; where making little or no stay, it passeth into the fourth, the seat of the *coagulum*, or runnet, or that division of stomach which seems to bear the name of the whole, in the Greek translation of the priest's fee, in the sacrifice of peace-offerings.

As for those rhomboidal figures made by the [48]  
 cartilaginous parts of the weazand, in the lungs of great fishes, and other animals, as Rondeletius discovered, we have not found them so to answer our figure as to be drawn into illustration; something we expected in the more discernable texture of the lungs of frogs, which  
 52 notwithstanding being but two curious bladders not weighing above a grain, we found interwoven with veins, not observing any just order. More orderly situated are those cretaceous and chalky concretions found sometimes in the bigness of a small vetch on either side their spine; which being not agreeable unto our order, nor

CHAP. III. yet observed by any, we shall not here discourse on.

[49] But had we found a better account and tolerable anatomy of that prominent jowl of the spermaceti whale than questuary operation<sup>1</sup>, or the stench of the last cast upon our shore permitted, we might have perhaps discovered some handsome order in those net-like seas and sockets, made like honeycombs, containing that medical matter.

[50] Lastly, the incession or local motion of animals is made with analogy unto this figure, by decussative diametrals, quineuncial lines and angles. For, to omit the enquiry how butterflies and breezes move their four wings, how birds and fishes in air and water move by joint strokes of opposite wings and fins, and how salicnt animals in jumping forward seem to arise and fall upon a square base,—as the station of most quadrupeds is made upon a long square, so in their motion they make a *rhomboides*; their common progression being performed diametrally, by decussation and cross advancement of their legs, which not observed, begot that remarkable absurdity in the position of the legs of Castor's horse in the Capitol. The snake which moveth circularly makes his spires in like order, the convex and concave spirals answering each other at alternate distances. In the motion of man the arms and legs observe this thwarting position, but the legs alone do move

The motion  
of animals  
quineuncial.

<sup>1</sup> 1652, described in our *Pseudo. Epidem.* edit. 3 [bk. iii. ch. 26].

quincuncially by single angles with some resemblance of a V measured by successive advancement from each foot, and the angle of indenture greater or less, according to the extent or brevity of the stride. CHAP. III.

154 Studious observers may discover more analogies in the orderly book of nature, and cannot escape the elegance of her hand in other correspondencies. The figures of nails and crucifying appurtenances, are but precariously made out in the *granadilla* or flower of Christ's passion: and we despair to behold in these parts that handsome draught of crucifixion in the fruit of the Barbado pine. The seminal spike of *phalaris*, or great shaking grass, more nearly answers the tail of a rattle-snake, than many resemblances in Porta. And if the man orchis<sup>1</sup> of Columna be well made out, it excelleth all analogies. In young walnuts cut athwart, it is not hard to apprehend strange characters; and in those of somewhat elder growth, handsome ornamental draughts about a plain cross. In the root of *osmond* or water-fern, every eye may discern the form of a half-moon, rainbow, or half the character of *pisces*. Some find Hebrew, Arabick, Greek, and Latin characters in plants; in a common one among us we seem to read *Aiain, Vivin, Lilil*.

155 Right lines and circles make out the bulk of plants. In the parts thereof we find heliacal or spiral roundles, volutas, conical sections, circular pyramids, and frustums of Archimedes. And

Cruciform  
appearances  
in many  
plants.

Various  
analogies  
traced in  
vegetables,  
animals, and  
insects.

<sup>1</sup> *Orchis Anthropophora*, Fabii Columnæ.

CHAP. III. cannot overlook the orderly hand of nature, in the alternate succession of the flat and narrower sides in the tender shoots of the ash, or the regular inequality of bigness in the five-leaved flowers of henbane, and something like in the calicular leaves of tutson. How the spots of *persicaria* do manifest themselves between the sixth and tenth rib. How the triangular cap in the stem or *stylus* of tulips doth constantly point at three outward leaves. That spicated flowers do open first at the stalk<sup>1</sup>. That white flowers have yellow thrums or knops. That the nib of beans and peas do all look downward, and so press not upon each other. And how the seeds of many pappous or downy flowers locked up in sockets after a *gomphosis* or mortise-articulation, diffuse themselves circularly into branches of rare order, observable in *tragopogon* or goats-beard, conformable to the spider's web, and the *radii* in like manner<sup>156</sup> telarly interwoven.

[53] And how in animal natures, even colours hold correspondencies, and mutual correlations. That the colour of the caterpillar will show again in the butterfly, with some latitude is allowable. Though the regular spots in their wings seem but a mealy adhesion, and such as may be wiped away, yet since they come in this variety, out of their cases, there must be regular pores in those parts and membranes, defining such exudations.

[54] That Augustus<sup>2</sup> had native notes on his body

<sup>1</sup> Below.

<sup>2</sup> Suet. [*Vit Aug.* lxxx.].

and belly, after the order and number in the CHAP. III.  
stars of Charles' wain, will not seem strange  
unto astral physiognomy, which accordingly  
considereth moles in the body of man ; or phy-  
sical observators, who from the position of moles  
in the face, reduce them to rule and corre-  
spondency in other parts. Whether after the  
like method medical conjecture may not be  
raised upon parts inwardly affected ; since parts  
about the lips are the critical seats of pustules  
57 discharged in agues ; and scrofulous tumours  
about the neck do so often speak the like about  
the mesentery, may also be considered.

The russet neck in young lambs<sup>1</sup> seems but [55]  
adventitious, and may owe its tincture to some  
contaction in the womb : but, that if sheep have  
any black or deep russet in their faces, they  
want not the same about their legs and feet ;  
that black hounds have mealy mouths and feet ;  
that black cows which have any white in their  
tails, should not miss of some in their bellies ;  
and if all white in their bodies, yet if black  
mouthed, their ears and feet maintain the same  
colour ;—are correspondent tinctures not ordi-  
narily failing in nature, which easily unites the  
accidents of extremities, since in some genera-  
tions she transmutes the parts themselves, while  
in the *aurelian metamorphosis* the head of the  
canker becomes the tail of the butterfly. Which  
is in some way not beyond the contrivance of  
art, in submersions and inlays, inverting the

<sup>1</sup> To be observed in white young lambs, which afterwards  
vanisheth,



CHAP. III. extremes of the plant, and fetching the root from the top, and also imitated in handsome columnary work, in the inversion of the extremes; wherein the capital, and the base, hold such near correspondency. 158

[56] In the motive parts of animals may be discovered mutual proportions; not only in those of quadrupeds, but in the thigh-bone, leg, foot-bone, and claws of birds. The legs of spiders are made after a *sesqui-tertian* proportion, and the long legs of some locusts, double unto some others. But the internodial parts of vegetables, or spaces between the joints, are contrived with more uncertainty; though the joints themselves, in many plants, maintain a regular number.

Proportions  
in the motive  
parts of  
animals and  
birds, and  
obscurely in  
plants.

[57] In vegetable composure, the union of prominent parts seems most to answer the *apophyses* or processes of animal bones, whereof they are the produced parts or prominent explantations. And though in the parts of plants which are not ordained for motion, we do not expect correspondent articulations; yet in the setting on of some flowers and seeds in their sockets, and the lineal commissure of the pulp of several seeds, may be observed some shadow of the harmony, 159 some show of the *gomphosis* or mortise-articulation.

[58] As for the *diarthrosis* or motive articulation, there is expected little analogy; though long-stalked leaves do move by long lines, and have observable motions, yet are they made by outward impulsions, like the motion of pendulous

bodies, while the parts themselves are united by some kind of *symplysis* unto the stoek. CHAP. III.

But standing vegetables, void of motive articu- [59]  
lations, are not without many motions. For, besides the motion of vegetation upward, and of radiation unto all quarters, that of contraction, dilatation, inclination, and contortion, is discoverable in many plants. To omit the rose of Jericho, the ear of rye, which moves with change of weather, and the magical spit, made of no rare plants, which winds before the fire, and roasts the bird without turning.

Even animals near the classis of plants, seem [60]  
to have the most restless motions. The summer-worm of ponds and plashes, makes a long waving motion, the hair-worm seldom lies still. He that would behold a very anomalous motion, may observe it in the tortile and tiring strokes of gnat-worms <sup>1</sup>.

<sup>1</sup> Found often in some form of red maggot in the standing waters of cisterns in the summer.

## CHAPTER IV.

On the various conveniences and delights of the quincunx. [1] AS for the delights, commodities, mysteries, 161 with other concernments of this order, we are unwilling to fly them over, in the short deliveries of Virgil, Varro, or others, and shall therefore enlarge with additional ampliati-  
 ons.

In the due proportion of earth allowed by it. [2] By this position they had a just proportion of earth, to supply an equality of nourishment. The distance being ordered, thick or thin, according to the magnitude or vigorous attraction of the plant, the goodness, leanness or propriety of the soil: and therefore the rule of Solon, concerning the territory of Athens, not extendible unto all; allowing the distance of six foot unto common trees, and nine for the fig and olive.

[3] They had a due diffusion of their roots on all or both sides, whereby they maintained some proportion to their height, in trees of large 162 radication. For that they strictly make good their *profundeur* or depth unto their height, according to common conceit, and that expression of Virgil<sup>1</sup>, though confirmable from the

<sup>1</sup> "Quantum vertice ad auras  
 Æthereas, taotum radice ad Tartara tendit."  
 [Æn. iv. 445-6.]

plane tree in Pliny, and some few examples, is not to be expected from the generality of trees almost in any kind, either of side-spreading, or tap-roots; except we measure them by lateral and opposite diffusions: nor commonly to be found in *minor* or herby plants; if we except sea-holly, liquorice, sea-rush, and some others. CHAP. IV.

They had a commodious radiation in their growth, and a due expansion of their branches, for shadow or delight. For trees thickly planted, do run up in height and branch with no expansion, shooting unequally or short, and thin upon the neighbouring side. And therefore trees are inwardly bare, and spring and leaf from the outward and sunny side of their branches.

[4] In the room afforded for equal spreading of the trees, and the due circulation of air.

Whereby they also avoided the peril of *συνολεθρισμός* or one tree perishing with another, as it happeneth oftentimes from the sick *effluviūms* or entanglements of the roots falling foul with each other. Observable in elms set in hedges, where if one dieth, the neighbouring tree prospereth not long after.

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In this situation, divided into many intervals [6] and open unto six passages, they had the advantage of a fair perflation from winds, brushing and cleansing their surfaces, relaxing and closing their pores unto due perspiration. For that they afford large *effluviūms*, perceptible from odours, diffused at great distances, is observable from onions out of the earth, which though dry, and kept until the spring, as they shoot forth large and many leaves, do notably abate of their weight; and mint growing in glasses of water,

CHAP. IV. until it arriveth unto the weight of an ounce, in a shady place, will sometimes exhaust a pound of water. And as they send much forth, so may they receive somewhat in; for beside the common way and road of reception by the root, there may be a refection and imbibition from 164 without, for gentle showers refresh plants, though they enter not their roots, and the good and bad *effluvioms* of vegetables promote or debilitate each other. So *epithymum* and dodder, rootless and out of the ground, maintain themselves, upon thyme, savory, and plants whereon they hang; and ivy, divided from the root, we have observed to live some years, by the cirrous parts commonly conceived but as tenacles and hold-fasts unto it. The stalks of mint cropt from the root, stripped from the leaves, and set in glasses with the root end upward, and out of the water, we have observed to send forth sprouts and leaves without the aid of roots, and *scordium* to grow in like manner, the leaves set downward in water. To omit several sea plants, which grow on single roots from stones, although in very many there are side shoots and fibres, beside the fastening root.

[7] By this open position they were fairly exposed  
 In the action of the sun. unto the rays of moon and sun, so considerable  
 in the growth of vegetables. For though poplars, 165  
 willows, and several trees be made to grow about  
 the brinks of Acheron, and dark habitations of  
 the dead; though some plants are content to  
 grow in obscure wells, wherein also old elm  
 pumps afford sometimes long bushy sprouts, not

observable in any above ground; and large CHAP. IV.  
fields of vegetables are able to maintain their  
verdure at the bottom and shady part of the  
sea, yet the greatest number are not content  
without the actual rays of the sun, but bend,  
incline, and follow them, as large lists of solise-  
quious or sun-following plants; and some ob-  
serve the method of its motion in their own  
growth and conversion, twining towards the  
west by the south, as briony, hops, woodbine,  
and several kinds of bindweed, which we shall  
more admire, when any can tell us, they observe  
another motion, and twist by the north at the  
antipodes. The same plants rooted against an  
erect north wall full of holes, will find a way  
166 through them to look upon the sun; and in  
tender plants from mustard seed, sown in the  
winter, and in a pot of earth placed inwardly  
against a south window, the tender stalks of  
two leaves arose not erect, but bending towards  
the window, nor looking much higher than the  
meridian sun; and if the pot were turned they  
would work themselves into their former declina-  
tions, making their conversion by the east. That  
the leaves of the olive and some other trees  
solstitially turn, and precisely tell us when the  
sun is entered Cancer, is scarce expectable in  
any climate, and Theophrastus warily observes  
it. Yet somewhat thereof is observable in our  
own, in the leaves of willows and sallows, some  
weeks after the solstice. But the great con-  
volvulus, or white flowered bindweed, observes  
both motions of the sun; while the flower twists

CHAP. IV. equinoctially from the left hand to the right, according to the daily revolution, the stalk twineth ecliptically from the right to the left, according to the annual conversion.

- [8] Some commend the exposure of these orders <sup>167</sup> unto the western gales, as the most generative and fructifying breath of heaven. But we applaud the husbandry of Solomon, whereto agreeth the doctrine of Theophrastus: "Arise, O north wind, and blow, thou south, upon my garden, that the spices thereof may flow out." For the north wind closing the pores, and shutting up the effluviūms, when the south doth after open and relax them, the aromatical gums do drop, and sweet odours fly actively from them; and if his garden had the same situation, which maps and charts afford it, on the east side of Jerusalem, and having the wall on the west; these were the winds unto which it was well exposed.

- [9] By this way of plantation they increased the number of their trees, which they lost in quaternios and square orders, which is a commodity insisted on by Varro, and one great intent of Nature, in this position of flowers and seeds in the elegant formation of plants, and the former rules observed in natural and arti- <sup>168</sup> ficial figurations.

- [10] Whether in this order, and one tree in some measure breaking the cold and pinching gusts of winds from the other, trees will not better maintain their inward circles, and either escape or moderate their eccentricities, may also be

In the  
greatest  
economy  
of space.

In mutual  
shelter from  
currents of  
wind.

considered. For the circles in trees are naturally concentrical, parallel unto the bark, and unto each other, till frost and piercing winds contract and close them on the weather side, the opposite semicircle widely enlarging, and at a comely distance, which hindereth oftentimes the beauty and roundness of trees, and makes the timber less serviceable, whilst the ascending juice, not readily passing, settles in knots and inequalities; and therefore it is no new course of agriculture, to observe the native position of trees according to north and south in their transplantations.

The same is also observable under ground in [11] the circinations and spherical rounds of onions, wherein the circles of the orbs are oftentimes larger, and the meridional lines stand wider upon one side than the other; and where the largeness will make up the number of planetical orbs, that of Luna and the lower planets exceed the dimensions of Saturn, and the higher; whether the like be not verified in the circles of the large roots of briony and mandrakes, or why, in the knots of deal or fir, the circles are often eccentric, although not in a plane, but vertical and right position, deserves a further enquiry.

Whether there be not some irregularity of [12] roundness in most plants according to their position; whether some small compression of pores be not perceptible in parts which stand against the current of waters, as in reeds, bulrushes, and other vegetables toward the streaming quarter, may also be observed; and therefore such as are long and weak are com-

CHAP. IV.



CHAP IV. monly contrived unto a roundness of figure, whereby the water presseth less, and slippeth more smoothly from them, and even in flags of flat figured leaves, the greater part obvert <sup>170</sup> their sharper sides unto the current in ditches.

- [13] But whether plants which float upon the surface of the water be for the most part of cooling qualities, those which shoot above it of heating virtues, and why? Whether *sargasso* for many miles floating upon the western ocean, or sea-lettuce and *phasganium* at the bottom of our seas, make good the like qualities? Why fenny waters afford the hottest and sweetest plants, as *calamus*, *cyperus*, and crowfoot, and mud cast out of ditches most naturally produceth arsmart? Why plants so greedy of water so little regard oil? Why since many seeds contain much oil within them, they endure it not well without, either in their growth or production? Why since seeds shoot commonly under ground and out of the air, those which are let fall in shallow glasses, upon the surface of the water, will sooner sprout than those at the bottom; and if the water be covered with oil, those at the bottom will hardly sprout at all, we have not room to conjecture. 171

Effect of oil  
and water on  
the germina-  
tion of seeds.

Whether ivy  
would do less  
injury in  
this arrange-  
ment?

- [14] Whether ivy would not less offend the trees in this clean ordination, and well-kept paths, might perhaps deserve the question. But this were a query only unto some habitations, and little concerning Cyrus or the Babylonian territory; wherein by no industry Harpalus could make ivy grow. And Alexander hardly found

it about those parts, to imitate the pomp of CHAP. IV.  
Bacchus. And though in these northern regions we are too much acquainted with one ivy, we know too little of another, whereby we apprehend not the expressions of antiquity, the splenetick medicine<sup>1</sup> of Galen, and the emphasis of the poet, in the beauty of the white ivy<sup>2</sup>.

The like concerning the growth of misseltoe, [15]  
which dependeth not only of the species, or kind of tree, but much also of the soil. And therefore common in some places, not readily found in others, frequent in France, not so common in Spain, and scarce at all in the territory of Ferrara; nor easily to be found where it is most required, upon oaks, less on  
172 trees continually verdant. Although in some places the olive escapeth it not, requiting its detriment in the delightful view of its red berries; as Clusius observed in Spain, and Bellonius about Jerusalem. But this parasitical plant suffers nothing to grow upon it, by any way of art; nor could we ever make it grow where nature had not planted it, as we have in vain attempted by inoculation and incision, upon its native or foreign stock. And though there seem nothing improbable in the seed, it hath not succeeded by sation in any manner of ground, wherein we had no reason to despair, since we read of vegetable horns, and how rams horns will root about Goa<sup>3</sup>.

<sup>1</sup> Galen. *de Med. secundum loc.* [ix. 2. tom. xiii. p. 239.]

<sup>2</sup> "Hederâ formosior albâ."—[Virg. *Ecl.* vii. 38.]

<sup>3</sup> Linschoten.

CHAP. IV. But besides these rural commodities, it  
 [16] cannot be meanly delectable in the variety of

Great  
 variety  
 afforded by  
 this order.

figures, which these orders, open and closed, do make. Whilst every inclosure makes a rhombus, the figures obliquely taken a *rhomboides*, the intervals bounded with parallel lines, and each intersection built upon a square, affording 173 two triangles or pyramids vertically conjoined; which in the strict quincuncial order do oppositely make acute and blunt angles.

[17] And though therein we meet not with right angles, yet every rhombus containing four angles equal unto four right, it virtually contains four right. Nor is this strange unto such as observe the natural lines of trees, and parts disposed in them. For neither in the root doth nature affect this angle, which shooting downward for the stability of the plant, doth best effect the same by figures of inclination: nor in the branches and stalky leaves, which grow most at acute angles; as declining from their head the root, and diminishing their angles with their altitude; verified also in lesser plants, whereby they better support themselves, and bear not so heavily upon the stalk; so that while near the root they often make an angle of seventy parts, the sprouts near the top will often come short of thirty. Even in the nerves 174 and master veins of the leaves the acute angle ruleth; the obtuse but seldom found, and in the backward part of the leaf, reflecting and arching about the stalk. But why oftentimes one side of the leaf is unequal unto the other, as in

hazel and oaks, why on either side the master vein, the lesser and derivative channels stand not directly opposite, nor at equal angles, respectively unto the adverse side, but those of one part do often exceed the other, as the walnut and many more, deserves another enquiry. CHAP. IV.

Now if for this order we affect coniferous and [18] tapering trees, particularly the cypress, which grows in a conical figure; we have found a tree not only of great ornament, but, in its essentials, of affinity unto this order; a solid rhombus being made by the conversion of two equicrural cones, as Archimedes hath defined. And these were the common trees about Babylon, and the East, whereof the ark was made: and Alexander 175 found no trees so accommodable to build his navy:—and this we rather think to be the tree mentioned in the Canticles, which stricter botanology will hardly allow to be camphire.

And if delight or ornamental view invite [19] a comely disposure by circular amputations, as is elegantly performed in hawthorns, then will they answer the figures made by the conversion of a rhombus, which maketh two concentric circles; the greater circumference being made by the lesser angles, the lesser by the greater.

The cylindrical figure of trees is virtually con- [20] tained and latent in this order; a cylinder or long round being made by the conversion or turning of a parallelogram, and most handsomely by a long square, which makes an equal,

CHAP. IV. strong, and lasting figure in trees, agreeable unto the body and motive part of animals, the greatest number of plants, and almost all roots, though their stalk be angular, and of many corners; which seem not to follow the figure of their seeds; since many angular seeds send forth round stalks, and spherical seeds arise 176 from angular spindles, and many rather conform unto their roots, as the round stalks of bulbous roots and in tuberous roots stems of like figure. But why, since the largest number of plants maintain a circular figure, there are so few with teretous or long round leaves? Why coniferous trees are tenuifolious or narrow-leaved? Why plants of few or no joints have commonly round stalks? Why the greatest number of hollow stalks are round stalks; or why in this variety of angular stalks the quadrangular most exceedeth, were too long a speculation. Meanwhile obvious experience may find, that in plants of divided leaves above, nature often beginneth circularly in the two first leaves below, while in the singular plant of ivy she exerciseth a contrary geometry, and beginning with angular leaves below, rounds them in the upper branches.

- [21] Nor can the rows in this order want delight, as carrying an aspect answerable unto the *dipteros hypæthros*, or double order of columns open above; the opposite ranks of trees stand- 177 ing like pillars in the *cavedia* of the courts of famous buildings, and the porticoes of the *templa subdialia* of old; somewhat imitating the *peristylia* or cloister-buildings, and the *exedrae* of the

CHAP. IV. first appear in that colour, observable in seeds sprouting in water upon their first foliation. Green seeming to be the first supervenient, or above ground complexion of vegetables, separable in many upon ligature or inhumation, as succory, endive, artichokes, and which is also lost upon fading in the autumn.

[24] And this is also agreeable unto water itself, 179 the alimantal vehicle of plants, which first altereth into this colour. And, containing many vegetable seminalities, revealeth their seeds by greenness; and therefore soonest expected in rain or standing water, not easily found in distilled or water strongly boiled; wherein the seeds are extinguished by fire and decoction, and therefore lasts long and pure without such alteration, affording neither uliginous coats, gnat-worms, *acari*, hair-worms, like crude and common water; and therefore, most fit for wholesome beverage, and with malt, makes ale and beer without boiling. What large water-drinkers some plants are, the canary-tree and birches in some northern countries, drenching the fields about them, do sufficiently demonstrate. How water itself is able to maintain the growth of vegetables, and without extinction of their generative or medical virtues, —besides the experiment of Helmont's tree, we have found in some which have lived six years in glasses. The seeds of scurvy-grass growing 18 in water-pots, have been fruitful in the land; and *assarum* after a year's space, and once casting its leaves in water, in the second

leaves hath handsomely performed its vomiting C. . . . operation.

Nor are only dark and green colours, but [2: . shades and shadows contrived through the great volume of nature, and trees ordained not only to protect and shadow others, but by their shades and shadowing parts, to preserve and cherish themselves: the whole radiation or branchings shadowing the stock and the root; —the leaves, the branches and fruit, too much exposed to the winds and scorching sun. The calicular leaves inclose the tender flowers, and the flowers themselves lie wrapt about the seeds, in their rudiment and first formations, which being advanced, the flowers fall away; and are therefore contrived in variety of figures, best satisfying the intention; handsomely observable in hooded and gaping flowers, and the butterfly blooms of leguminous plants, the lower  
181 leaf closely involving the rudimental cod, and the alary or wingy divisions embracing or hanging over it.

But seeds themselves do lie in perpetual [26] shades, either under the leaf, or shut up in coverings; and such as lie barest, have their husks, skins, and pulps about them, wherein the nib and generative particle lieth moist and secured from the injury of air and sun. Darkness and light hold interchangeable dominions, and alternately rule the seminal state of things. Light unto Pluto<sup>1</sup> is darkness unto Jupiter.

Seeds lie in perpetual shade.

<sup>1</sup> "Lux Orco, tenebræ Jovi; tenebræ Orco, lux Jovi."—Hippocr. *de Dieta* [lib. i. § 5, tom. i. p. 633, ed. Kühn].

CHAP. IV. Legions of seminal ideas lie in their second chaos and Orcus of Hippocrates; till putting on the habits of their forms, they show themselves upon the stage of the world, and open dominion of Jove. They that held the stars of heaven were but rays and flashing glimpses of the empyreal light, through holes and perforations of the upper heaven, took off the natural shadows of stars<sup>1</sup>; while according to better discovery the poor inhabitants of the moon have but a polary life; and must pass half their days 182 in the shadow of that luminary.

[27] Light that makes things seen, makes some things invisible; were it not for darkness and the shadow of the earth, the noblest part of the creation had remained unseen, and the stars in heaven as invisible as on the fourth day, when they were created above the horizon with the sun, or there was not an eye to behold them. The greatest mystery of religion is expressed by adumbration, and in the noblest part of Jewish types, we find the cherubims shadowing the mercy-seat. Life itself is but the shadow of death, and souls departed but the shadows of the living. All things fall under this name. The sun itself is but the dark *simulacrum*, and light but the shadow of God.

[28] Lastly, it is no wonder that this quincuncial order was first and is still affected as grateful unto the eye. For all things are seen quincuncially; for at the eye the pyramidal rays, from the object, receive a decussation, and so strike

This order is agreeable to the eye, as consonant to the angles observable

<sup>1</sup> J. Hevelii *Selenographia*.



a semi-decussation which makes the object seen in a perpendicular unto itself, and as far below the reflectent, as it is from it above; observable 184 in the sun and moon beheld in water.

And this is also the law of reflection in moved [29] bodies and sounds, which though not made by decussation, observe the rule of equality between incidence and reflection: whereby whispering places are framed by elliptical arches laid side-wise; where the voice being delivered at the focus of one extremity, observing an equality unto the angle of incidence, it will reflect unto the focus of the other end, and so escape the ears of the standers in the middle.

CHAP. IV. A like rule is observed in the reflection of the

[30] vocal and sonorous line in echoes, which cannot therefore be heard in all stations. But happening in woody plantations, by waters, and able to return some words, if reached by a pleasant and well-dividing voice, there may be heard the softest notes in nature.

[31] And this not only verified in the way of sense, but in animal and intellectual receptions: things entering upon the intellect by a pyramid from without, and thence into the memory by 185 another from within, the common decussation being in the understanding as is delivered by Bovillus<sup>1</sup>. Whether the intellectual and phantastical lines be not thus rightly disposed, but magnified, diminished, distorted, and ill placed, in the mathematicks of some brains, whereby they have irregular apprehensions of things, perverted notions, conceptions, and incurable hallucinations, were no unpleasant speculation.

[32] And if Egyptian philosophy may obtain, the scale of influences was thus disposed, and the genial spirits of both worlds do trace their way in ascending and descending pyramids, mystically apprehended in the letter X, and the open bill and stradling legs of a stork, which was imitated by that character.

[33] Of this figure Plato made choice to illustrate the motion of the soul, both of the world and man: while he delivereth that God divided the whole conjunction length-wise, according to the figure of a Greek X, and then turning it about

Plato chose this figure to illustrate the motion of the soul.

<sup>1</sup> Car. Bovillus *De Intellectu*.

reflected it into a circle: by the circle implying CHAP. I.  
 6 the uniform motion of the first orb, and by the  
 right lines, the planetical and various motions  
 within it. And this also with application unto  
 the soul of man, which hath a double aspect, one  
 right, whereby it beholdeth the body, and objects  
 without; — another circular and reciprocal,  
 whereby it beholdeth itself. The circle declar-  
 ing the motion of the indivisible soul, simple,  
 according to the divinity of its nature, and  
 returning into itself; the right lines respecting  
 the motion pertaining unto sense and vegetation;  
 and the central decussation, the wondrous con-  
 nection of the several faculties conjointly in one  
 substance. And so conjoined the unity and  
 duality of the soul, and made out the three  
 substances so much considered by him; that  
 is, the indivisible or divine, the divisible or  
 corporeal, and that third, which was the *systasis*  
 or harmony of those two, in the mystical decus-  
 sation.

And if that were clearly made out which [34]  
 Justin Martyr took for granted, this figure hath *Apol.* l. 60.  
 had the honour to characterize and notify our  
 187 blessed Saviour, as he delivereth in that borrowed  
 expression from Plato:—"decussavit eum in  
*universo*<sup>1</sup>," the hint whereof he would have  
 Plato derive from the figure of the brazen  
 serpent, and to have mistaken the letter X for  
 T. Whereas it is not improbable, he learned  
 these and other mystical expressions in his  
 learned observations of Egypt, where he might

<sup>1</sup> Ἐχέσεν αὐτὸν ἐν τῷ παντί.

CHAP. IV. obviously behold the mercurial characters, the handed crosses, and other mysteries not thoroughly understood in the sacred letter X; which, being derivative from the stork, one of the ten sacred animals, might be originally Egyptian, and brought into Greece by Cadmus of that country.

CHAP. V. and plants, since Plutarch, and the ancients have named it the divisive number ; justly dividing the entities of the world, many remarkable things in it, and also comprehending the general division of vegetables <sup>1</sup>. And he that considers how most blossoms of trees, and greatest number of flowers, consist of five leaves, and therein doth rest the settled rule of nature ;—so that in those which exceed, there is often found, or easily made, a variety ;—may readily discover how nature rests in this number, which is indeed the first rest and pause of numeration in the fingers, the natural organs thereof. Nor in the division of the feet of perfect animals doth nature exceed this account. And even in the <sup>190</sup> joints of feet, which in birds are most multiplied, surpasseth not this number ; so progressionally making them out in many <sup>2</sup>, that from five in the fore-claw she descendeth unto two in the hindmost ; and so in four feet makes up the number of joints, in the five fingers or toes of man.

- [3] Not to omit the quintuple section of a cone <sup>3</sup>, of handsome practice in ornamental garden-plots, and in some way discoverable in so many works of nature, in the leaves, fruits, and seeds of vegetables, and scales of some fishes ; so

<sup>1</sup> Δένδρον, Θάμνος, Φυτόγονον, Πόα, *Arbor, frutex, suffrutex, herba*, and that fifth which comprehendeth the *fungi* and *tubera*, whether to be named Ἀσχίον or γύμνον, comprehending also *conferva marina salsa*, and sea-cords, of so many yards length.

<sup>2</sup> As herons, bitterns, and long-clawed fowls.

<sup>3</sup> *Elleipsis, parabola, hyperbole, circulus, triangulum.*

much considerable in glasses, and the optick CH. 11 : doctrine ; wherein the learned may consider the crystalline humour of the eye in the cuttle-fish and loligo.

He that forgets not how antiquity named this [4] the conjugal or wedding number, and made it <sup>The</sup> the emblem of the most remarkable conjunction, <sup>num</sup> will conceive it duly applicable unto this handsome economy, and vegetable combination : and 191 may hence apprehend the allegorical sense of that obscure expression of Hesiod<sup>1</sup>, and afford no improbable reason why Plato admitted his nuptial guests by fives, in the kindred of the married couple<sup>2</sup>.

And though a sharper mystery might be [5] implied in the number of the five wise and foolish virgins, which were to meet the bridegroom, yet was the same agreeable unto the conjugal number, which ancient numerists made out by two and three, the first parity and imparity, the active and passive digits, the material and formal principles in generative societies. And not discordant even from the customs of the Romans, who admitted but five torches in their nuptial solemnities<sup>3</sup>. Whether there were any mystery or not, implied, the most generative animals were created on this day, and had accordingly the largest benediction. And under a quintuple consideration, wanton antiquity considered the circumstances of generation, while

<sup>1</sup> πέμπτας, *id est*, *nuptias multas*.—Rhodig. [*Lect. Ant.* xxii. c. x].

<sup>2</sup> Plato *de Leg.* 6.

<sup>3</sup> Plutarch. *Problem. Rom.* i.

CHAP. V. by this number of five they naturally divided <sup>192</sup> the nectar of the fifth planet <sup>1</sup>.

[6] The same number in the Hebrew mysteries and cabbalistical accounts was the character of generation <sup>2</sup>, declared by the letter He, the fifth in their alphabet, according to that cabbalistical dogma; if Abram had not had this letter added unto his name, he had remained fruitless, and without the power of generation: not only because hereby the number of his name attained two hundred forty eight, the number of the affirmative precepts, but because, as in created natures there is a male and female, so in divine and intelligent productions, the mother of life and fountain of souls in cabbalistical technology is called *Binah*, whose seal and character was He. So that being sterile before, he received the power of generation from that measure and mansion in the archetype: and was made conformable unto Binah. And upon such involved considerations, the ten of Sarai was exchanged <sup>193</sup> into five <sup>3</sup>. If any shall look upon this as a stable number, and fitly appropriable unto trees, as bodies of rest and station, he hath herein a great foundation in nature, who observing much variety in legs and motive organs of animals, as two, four, six, eight, twelve, fourteen, and more, hath passed over five and ten, and assigned them unto none, or very few, as the *Phalangium monstrosum Brasilianum* (*Clusii*

A stable number, as we never find animals with five legs, nor with ten.

<sup>1</sup> . . . . . "oscula quæ Venus  
Quinta parte sui nectaris imbuit."—[Hor. *Od.* i. 13.]  
<sup>2</sup> Archang. *Dog. Cabal.* <sup>3</sup> *Jod* into *He*.

*et Jac. de Laet. Cur. Poster. America Descript.*), CHAP. V if perfectly described. And for the stability of this number, he shall not want the sphericity of its nature, which multiplied in itself, will return into its own denomination. and bring up the rear of the account. Which is also one of the numbers that makes up the mystical name of God, which consisting of letters denoting all the spherical numbers, ten, five, and six, emphatically sets forth the notion of Trismegistus, and that intelligible sphere, which is the nature of God.

194 Many expressions by this number occur in [7].

Holy Scripture, perhaps unjustly laden with mystical expositions, and little concerning our order. That the Israelites were forbidden to eat the fruit of their new-planted trees, before the fifth year, was very agreeable unto the natural rules of husbandry; fruits being unwholesome and lash, before the fourth or fifth year. In the second day or feminine part of five, there was added no approbation. For in the third or masculine day, the same is twice repeated; and a double benediction inclosed both creations, whereof the one, in some part, was but an accomplishment of the other. That the trespasser<sup>1</sup> was to pay a fifth part above the head or principal, makes no secret in this number, and implied no more than one part above the principal; which being considered in four parts, the additional forfeit must bear the name of a fifth. The five golden mice had plainly their

195 determination from the number of the princes.

<sup>1</sup> Lev. vi. [5].



CHAP. V. That five should put to flight an hundred might have nothing mystically implied; considering a rank of soldiers could scarce consist of a lesser number. Saint Paul had rather speak five words in a known, than ten thousand in an unknown tongue; that is, as little as could well be spoken; a simple proposition consisting of three words, and a complexed one not ordinarily short of five.

This number  
often to be  
observed in  
scriptural,  
medical,  
astrological,  
cabbalistical,  
magical  
examples.

[8] More considerables there are in this mystical account, which we must not insist on. And therefore, why the radical letters in the penta-teuch should equal the number of the soldiery of the tribes? Why our Saviour in the wilderness fed five thousand persons with five barley loaves; and again, but four thousand with no less than seven of wheat? Why Joseph designed five changes of raiment unto Benjamin; and David took just five pebbles out of the brook against the Pagan champion;—we leave it unto arithmetical divinity, and theological explanation. 196

[9] Yet if any delight in new problems, or think it worth the enquiry, whether the critical physician hath rightly hit the nominal notation of *quinque*?<sup>1</sup> Why the ancients mixed five or three, but not four parts of water unto their wine; and Hippocrates observed a fifth proportion in the mixture of water with milk, as in dysenteries and bloody fluxes? Under what abstruse foundation astrologers do figure the good or bad fate

<sup>1</sup> τέσσαρα ἔν κε four and one, or five.—Scalig.

## QUINCUNX MYSTICALLY CONSIDERED

from our children, in good fortune<sup>1</sup>, or the fifth house of their celestial schemes? Whether the Egyptians described a star by a figure of five points, with reference unto the five capital aspects<sup>2</sup>, whereby they transmit their influences, or abstruser considerations? Why the cabbalistical doctors, who conceive the whole Sephiroth, or divine emanations to have guided the ten-stringed harp of David, whereby he pacified the evil spirit of Saul, in strict numeration do  
 197 begin with the *perihypate meson*, or *si fa ut*, and so place the *tiphereth* answering *e sol fa ut*, upon the fifth string? or whether this number be oftener applied unto bad things and ends, than good in holy Scripture, and why? he may meet with abstrusities of no ready resolution.

If any shall question the rationality of that [1 . magick, in the cure of the blind man by Serapis, commanded to place five fingers on his altar, and then his hand on his eyes? Why, since the whole comedy is primarily and naturally comprised in four parts<sup>3</sup>, and antiquity permitted not so many persons to speak in one scene, yet would not comprehend the same in more or less than five acts? Why amongst sea-stars nature chiefly delighteth in five points? And since there are found some of no fewer than twelve, and some of seven, and nine, there are few or none discovered of six or eight? If any shall enquire why the flowers of rue properly

<sup>1</sup> Ἀγαθὴ τύχη, *bona fortuna*, the name of the fifth house.

<sup>2</sup> Conjunct, opposite, sextile, trigonal, tetragonal.

<sup>3</sup> Ἰσοταίσις, ἐπίτασις, κατάστασις, καταστροφὴ

CHAP. V. consist of four leaves, the first and third flower have five? Why, since many flowers have one <sup>198</sup> leaf or none<sup>1</sup>, as Scaliger will have it, divers three, and the greatest number consist of five divided from their bottoms, there are yet so few of two? or why nature generally beginning or setting out with two opposite leaves at the root, doth so seldom conclude with that order and number at the flower? He shall not pass his hours in vulgar speculations.

[11] If any shall further query why magnetical philosophy excludeth decussions, and needles transversely placed do naturally distract their verticities? Why geomancers do imitate the quintuple figure, in their mother characters of acquisition and amission, &c., somewhat answering the figures in the lady or speckled beetle? With what equity chiromantical conjecturers decry these decussions in the lines and mounts of the hand? What that decussated figure intendeth in the medal of Alexander the Great? Why the goddesses sit commonly cross-legged <sup>199</sup> in ancient draughts, since Juno is described in the same as a veneficial posture to hinder the birth of Hercules? If any shall doubt why at the amphidromical feasts, on the fifth day after the child was born, presents were sent from friends, of polypuses and cuttle fishes? Why five must be only left in that symbolical mutiny among the men of Cadmus? Why Proteus in Homer, the symbol of the first matter, before he settled himself in the midst of his sea-

<sup>1</sup> *Unifolium nullifolium.*

## QUINCUNX MYSTICALLY CONSIDERED.

monsters, doth place them out by fives? Why of the fifth year's ox was acceptable sacrifice unto Jupiter? Or why the noble Antoninus in some sense doth call the soul itself a rhombus? He shall not fall on trite or trivial disquisitions. And these we invent and propose unto acuter enquirers, nauseating crumbe verities and questions over-queried. Flat and flexible truths are beat out by every hammer; but Vulcan and his whole forge sweat to work out Achilles his armour. A large field is yet left unto sharper discerners to enlarge upon this order, to search out the *quaternies* and figured draughts of this nature, and (moderating the study of names, and mere nomenclature of plants), to erect generalities, disclose unobserved proprieties, not only in the vegetable shop, but the whole volume of nature; affording delightful truths, confirmable by sense and ocular observation, which seems to me the surest path to trace the labyrinth of truth. For though discursive enquiry and rational conjecture may leave handsome gaslies and flesh-wounds; yet without conjunction of this, expect no mortal or dispatching blows unto error.

But the quincunx<sup>1</sup> of heaven runs low, and [12.  
'tis time to close the five ports of knowledge. We are unwilling to spin out our awaking thoughts into the phantasms of sleep, which often continueth precogitations; making cables of cobwebs, and wildernesses of handsome groves.

<sup>1</sup> *Hyades*, near the horizon about midnight, at that time.

CHAP. V. Beside Hippocrates<sup>1</sup> hath spoke so little, and the oneirocritical<sup>2</sup> masters have left such frigid interpretations from plants, that there is little encouragement to dream of Paradise itself. Nor will the sweetest delight of gardens afford much comfort in sleep; wherein the dulness of that sense shakes hands with delectable odours; and though in the bed of Cleopatra<sup>3</sup>, can hardly with any delight raise up the ghost of a rose.

[13] Night, which Pagan theology could make the daughter of Chaos, affords no advantage to the description of order; although no lower than that mass can we derive its genealogy. All things began in order, so shall they end, and so shall they begin again; according to the ordainer of order and mystical mathematicks of the city of heaven.

[14] Though Somnus in Homer be sent to rouse up Agamemnon, I find no such effects in these drowsy approaches of sleep. To keep our eyes open longer, were but to act our Antipodes. The huntsmen are up in America, and they are already past their first sleep in Persia. But who can be drowsy at that hour which freed<sup>2c</sup> us from everlasting sleep? or have slumbering thoughts at that time, when sleep itself must end, and, as some conjecture, all shall awake again?

<sup>1</sup> *De Insomniis.*

<sup>2</sup> Artemidorus

r.

<sup>3</sup> Strewed with roses.

## NOTE

THE references to pages given in the Notes are to the pages of the First Edition of 1658, which are indicated by the figures in the inner margins of the text, and not to the numbers at the head of the pages in this edition.

# NOTES

## CRITICAL AND EXPLANATORY ON "HYDRIOTAPHIA."

Page iii. Thomas le Gros] Mentioned in Edward Brown's Journal (vol. i. p. 49), who paid a visit to Crostwick, and "had a great deal of discourse with Mr. Le Grosse, about his travels into France, the Low Countreys, and Italy, and also his pilgrimage to Loretto, and of the treasure which is in that place." Wilkin (in I) gives some account of his family. See also Blomefield's *Hist. of Norfolk*, xi. 8-11.

P. iii. whether *they are to be scattered*] *whither*, a plausible but unnecessary alteration, first introduced without authority in F, has been adopted by Wilkin (I) and other modern editors.

P. iii. *the ruins of Pompeys*] So A, B, C, and quite correctly, as explained by the "*Pompeios juvenes*" in the notes to *Pompey's*, D, E, which is adopted by Wilkin (I) and other modern editors; *Pompey*, F, G, without authority. If Sir T. had written *the Pompeys*, there would have been no doubt about the sense.

P. iv, note. *Little directly but sea*] Crostwick Hall is about twenty miles distant from the north coast of Norfolk. (Noted by Wilkin in I.)

P. iv. *great Hippodrome urns*] So A, B, C, E; D has *great*.

P. iv. *noblest pile among us*] Raynham Hall, in Norfolk, then recently built by Inigo Jones, 1630.

P. iv, note 3. *Sir Horatio Townshend*] Sir T. B. in his letters (vol. i. pp. 8, 14) mentions his being made a Lord, and also Lord Lieutenant of Norfolk, 1661. He is mentioned by

Clarendon in his *History* (bk. xvi. not far from the beginning) as having done good service to the Royal cause during the Commonwealth. He was made a Viscount, 1682, and died 1687.

P. v. *so many imperial faces*] Alluding probably (as Sir John Evans suggests) to his collection of Roman coins. The expression "imperial faces" occurs also, p. 21.

P. v. *antiquary's*] *antiquaries*, A to F; *-ries*, G; *-ry's*, Wilkin (I). and other modern edd.

P. vii. *one handsome Venus*] For *Venus* it seems probable that we should read *Helen*, and that Sir T. B. was thinking of the story of Zeuxis as told by Cicero (*De Invent. Rhetor.* ii. 1), and by a slip of the pen wrote *Venus* instead of *Helen*. The story has been a favourite with English poets, and is told, as of a portrait of Venus and with modern applications, by Horace Walpole (*The Beauties*), Granville (*Lady Hyde*), Mallet (*Zephyr, or the Stratagem*), and also by Campbell (*Pleasures of Hope*).

P. vii. *can only behold, &c.*] A most awkward and obscure sentence, which would have been plainer if Sir T. B. had written, "*we* can only behold . . . unto *our* predecessors . . . lie at *our* mercies."

P. vii. *defile not their ashes*] Alluding to Horace, *De Arte Poët.* v. 471. This Horatian phrase is quoted in Camden's *Remains*, p. 348 (1614), and from him both in Latin and English by Weever, *Funeral Monuments*, p. 47 (1631), whom Sir T. B. must probably have read.

P. viii, note. *Adamas de rupe veteri, &c.*] See J. H. Hofmanni *Lex. Univ.*, Lug. Bat. 1698.

P. 1. *to rake the bowels*] So A. C\*; *rack*, C, D; *take*, B.

P. 2. *thousands of years*] This is one of the errata in C, which was first corrected in F; former edd. had *a thousand years*.

P. 2 *the earth be light upon them*] "*Sit tibi terra levis*" (note in F), words so often found in ancient epitaphs. See also Martial, *Epigr.* ix. 30. pen.

P. 5. *Numa, &c.*] The meaning would be more plainly expressed thus:—It was only because of a special clause in Numa's will that he was buried, and not burnt.

P. 5. *Remus was solemnly burnt*] All the edd. before Wilkin (I), and some after him, have *burned*, which is evi-



P. 13. *They that . . . still credit the story of the Phoenix*] Alluding no doubt especially to Alexander Ross, who, in his *Arcana Microcosmi* &c., 1651, had, while attacking Sir T. B.'s *Vulgar Errors* (iii. 12), defended the existence of the Phoenix. A modern scholar has done the same. See *Notes and Queries*, 7th Ser., vol. vi. p. 481, vol. vii. p. 170.

P. 14. *The solemnities . . . delivered by authors*] The authors quoted by name by Sir T. B. are Casalius, Kirchmannus, and Perucci (see Index of Authors). Probably he also used Guthe-rius, *De Jure Manuum*, Paris, 1615, and in one or other of these writers (perhaps especially Kirchmannus) he found most of the classical passages which he quotes.

P. 14. *the extraneous substances*] The objects enumerated are (as Sir John Evans points out, in R) characteristic of Saxon interments, not Roman.

P. 15. *That these were the urns of Romans, &c.*] "For the modern antiquary, a glance at the Plate on which figures of some of the urns are given, suffices to show that they were [not of Roman, but] of Saxon origin." (Sir John Evans, p. xx.)

P. 16. *his daughters*] The meaning would be clearer, if Sir T. B. had written—*his own [two] daughters*.

P. 17. *Now if the Icenii, &c.*] The etymology of this name has been much disputed. See Munford's *Local Names in Norfolk*, 1878. Wilkin's note is as follows:—"That is to say, if *iken* (as well as ἄγκων) signified an elbow, and thus, the Icenians were but 'men that lived in an angle or elbow,' then would the inhabitants of Norfolk have the best claim to the appellation, that county being most emphatically the *elbow* of Icenia. But, unfortunately, *iken* does not signify an elbow; and it appears that the Icenii derived their name from the river Ouse, on whose banks they resided, anciently called Iken, Yken, or Ycin. Whence, also, Ikenild-street, Iken-thorpe, Ikenworth." (Wilkin in I.)

P. 17. *Gamunadiis . . . or men that lived in an angle, &c.*] Alluding perhaps to a note on Ezek. xxvii. 11 by Grotius (whose *Annotationes* he was acquainted with), "Probabilis est eorum sententia qui intelligi putant habitatores Anconis Phœnices; nam Ancon est ὠκ [gamad] cubitus."

P. 17. *not many . . . are now known*] So E; *many . . . are now known*, A, B, C; *many . . . are now unknown*, C\*, which is

golden bees found in the coffin of a pagan king of France near Brussels many ages after Christ, which he had ordered should be buried with him in token of his having been a mason." (*Works*, vol. xii. p. 337, ed. 1755.)

P. 25. *Quintus* (*Cicero*), and *Scribonius Largus*] Both these imaginary works are mentioned by Sir T. B. in the *Musæum Clausum*, §: 2 3.

P. 25. *that letter from his brother Quintus*] Alluded to by Cicero, in *Epist. ad Q. Fratrem*, ii. 16.

P. 25. *king of Britons*] F is the first edition that reads *the Britons*, but Sir T. B. is fond of omitting the definite article. St. John (in J) has *Britain*.

P. 27. *Ausgarius*] This is one of the Errata in C, but A to F and most modern edd. have *Ausgurius*. Probably first correctly printed by Sir John Evans in R.

P. 27. *this country*] I (Wilkin) is the first ed. that reads *this county*, without authority or necessity. In F and G the word "Norfolk" is added as an explanatory note. Sir T. B. uses the word "country" in the same sense above, p. 15, l. penult.

P. 30. *Great persons*] This is one of the Errata in C\*, which has been strangely overlooked in the old as well as most modern edd., which read *Great princes*.

P. 31. [*uns*] *with necks*] See Montfaucon, *Antiquity explained*, vol. v. plate 7 (ed. 1722).

P. 32. *and way*, C\*, F, G; *a way*, A to E, and the modern edd., except R, which reads *and*, but omits *way*. The omission of the definite article before *way* is part of Sir T. B.'s style, as has been noticed before.

P. 32. *way preferred by Varro*] See Pliny, *Hist. Nat.* xxxv. 46.

P. 32. *wherewith Severus lay*] It was supposed that the celebrated Portland Vase in the British Museum was this cinerary urn, though it is thought that it must have been made in the time of Augustus. It is now known to be made of glass.

P. 32. *solid tegument*] St. John points out (in J) that the "solid tegument," about which Sir T. B. seems to have been in doubt, was gold: ἀλλεγον ἐς χρυσέην φιάλην (*Iliad*, ψ 253); and the "covering" cast over the urn in the tent, was not, as he supposes, "a purple piece of silk," but a shroud of fine linen;

*tianus*, and also *Martiano* in the note at the bottom of the page. In some copies of C, however, the text has *Marlianus*.

P. 43, note 1. *Which could not be burnt*] These words are placed in C\* among the "Marginal Illustrations omitted," not among the "Errata" in the text. They were first noticed in F, where they are properly placed at the bottom of the page, as a note; Wilkin (1) has inserted them in the text. The story is mentioned by Pliny, *Hist. Nat.* vii. 2, p. 6, ed. Tauchn. (See below, p. 59. note, and p. 75. note.)

P. 43, note. These passages afford a good illustration of the way in which words and clauses have in the case of MSS. of the Old and New Testaments been introduced from the margin into the text.

P. 43 In one of Sir T. B.'s Common Place Books (MS. Sloane, 1843) are found the following lines, given by Wilkin, vol. iv. p. 377:—"One in the gout wishing for King Pyrrhus's toe, which could not be burnt at his funeral pyre.

"O for a toe, such as the funeral pyre  
Could make no work on—proof 'gainst flame and fire;  
Which lay unburnt when all the rest burnt out,  
Such amianthine toes might scorn the gout;  
And the most flaming blast the gout could blow  
Prove but an *ignis lambens* to that toe."

P. 43. *Salamander's wool*] "A kind of asbestos or mineral flax," Johnson. Mentioned also by Bacon.

P. 45, note 6. *speran.* (not corrected in any (?) edition) is probably a mistake for *spern.*, i. e. *spern[aceti]*, and, if so, is meant as an example of "burning lights" drawn from animals, and "*alb[umen] ovor[um]*" an example of "medicines against burning."

P. 47. *in the days of Cuthred*] When Cuthbert, eleventh Archbishop of Canterbury (ob. 758), obtained a dispensation from the Pope. See Gervas. Dorobern. in Staveley's *Hist. of Churches in England*, ch. 15.

P. 47. *Christians dispute &c.*] If the passage referred to by Sir T. B. is Kirchmann, *De Funer.* lib. iii. cap. 8, p. 380, the discussion is among heathen, not among Christians.

P. 47. *Megarians*] Here Sir T. B. is wrong in confounding the Phœnician with the Megarian practice; for, while the former was to place their dead looking towards the

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west—ἐπὶ δόσω, Schol. Thucyd. i. 5, vol. v. 309, 3 latter observed no certain rule: ὡς ἐτυχὲ τεθαμμένους *Var. Hist.* vii. 19. The same writer represents the At as burying their dead with their faces towards the wes Diog. Laert. in *Vit. Solon.* i. 2, states the contrary, ar supported by the Scholiast on Thucydides. (St. John

P. 48. *gnawed*] *knaw'd* A to E, and some modci but *gnawed* is one of the corrections in C, and is adop in F, and cannot be set aside without absolute necessit

P. 48. *hair, &c.*] This assertion of the durability o hair has been corroborated by modern experiment. M of Geneva, instituted a comparison between recent hair and that from a mummy brought from Tencrit reference to the constancy of those properties which hair important as a hygrometrick substance. For this [ hygrometers, constructed according to the principles sure, were used; one with a fresh hair, the other f mummy. The results of the experiments were, t hygrometrick quality of the Guanche hair is sensibly t as that of recent hair.—*Edin. Philos. Journal*, xiii. 196. in I.)

P. 48. *In an hydropical body, &c.*] This substance w wards found in the cemetery of the Innocents at F Foureroy, and became known to the French chemis the name of *adipocire*. Sir Thomas is admitted to ha the first discoverer of it. (Wilkin in I.)

P. 48. *Castile soap*] Spelled in the old edd. A to F soap.

P. 49. *metamorphosis of Ortelius*] In the extreme his map of Russia there is a picture of a tribe of nati posed to be turned to stone "*stupenda quadam "* *phosi.*" Wilkin in his note describes the wrong picture. the map is dated 1562, and is by Antonius Jenkensonus Anglus; who says, "*evenit hoc prodigium annis circiter 300 retro elapsis.*"

P. 50. *Danté's characters*] The same conceit, with the expression "the starved characters of Dante," is found in Sir T. B.'s *Letter to a Friend*, sect. 9.

P. 50, note 2. *That part, &c.*] So C\*, but om. A to E, and first found in F.

P. 50, note 1. *For their extraordinary thickness*] So C\*, but om. A to E, and first found in F.

P. 51. *salve*, A to E; *solve*, Wilkin in I, without authority or necessity. See Glossarial Index.

P. 54. *The soul had wings in Homer*] *Ψυχὴ δ', ἥντ' ὄνειρος ἀποπταμένη πεπόνηται* (*Odys.* xi. 222).

P. 56, note 1. *Vale, vale, &c.*] These words are quoted (and not quite correctly, as St. John points out,) from Servius, on Virgil, *Æn.* iii. 68 from note in J).

P. 56. *that tree*, C, D, F; *that he*, A, B; *that it*, E, which is adopted by Wilkin (I).

P. 58. *Mahometans . . . are carried forth with their heads forward*] This practice is still continued, and is mentioned by Mr. Lane in his notes to *The Thousand and One Nights*, ch. vi. n. 11.

P. 59, note 2. *At least, &c.*] This note, which is given in C\*, first appears in F, being omitted in A to E, as in some modern edd. Sir John Evans (R) has inserted the words in the text. (See above, p. 43, note, and below, p. 75, note.)

P. 60. *self-killers*] Hence Menelaus and Agamemnon, in Sophocles, oppose the burial of Ajax, who, in a fit of frenzy, had slain himself. *Ajax*, v. 1047 ff. (St. John in J.)

P. 60. *Tartarus*, C, D, F; *Tartara's*, A, B, E.

P. 60. *bottomless pit of Plato*] So A, E; B, C, D have *Pluto*.

Pp. 60, 61, 63. *the bottomless pit of Plato, the infernal house of Plato, and Plato's den*, all refer to the story of *Er*, mentioned above, ch. iii. § 14.

P. 61. *unto eight or ten bodies of men to add one of a woman, &c.*] See Plutarch, *Symposiakon*, lib. iii. quæst. 4.

P. 61. *infernal house of Plato*] So A, C\*, E; B, C, D have *Pluto*.

P. 61. *wherein cold makes a great part of their tortures*] No such passage (it is believed) is to be found in Plato. Probably Sir T. B. was thinking of the story of Melissa, Periander's wife, as told by Herodotus, v. 92. § 29.

P. 61. *female ghosts, &c.*] The passages in Homer and Virgil referred to by Sir T. B. in this and the following page will be found in *Odys.*, xi. 84, 90, 329, 444, 488, 563, 605; xxiv. 6; and *Æneid*, vi. 148, 494, 790.

## HYDRIOTAPHIA.

P. 61, note. These two notes are found in C\*, but A to E.

P. 62. *Morta*] One of the *Parcæ*. See Aul. Gell. iii.

P. 62. *cannot well speak*, A, B, C\*, E; *cannot we speak*, D.

P. 62. *The departed spirits*, &c.] Cary quotes this p in illustration of Dante, *Inferno*, canto x, where the are ignorant of things present, and Cavalcanti (like memnon) enquires about his son. Cary also refers to in Æschylus (*Pers.* 734) enquiring about his son Xerxes

P. 63. *A dialogue*, &c.] Such a dialogue it appear bable that Sir T. B. contemplated writing himself; b uncertain whether he ever did so. See Wilkin's editio ii. p. 58; vol. iii. p. 486; and vol. iv. pp. 379, 469.

P. 63. *Pythagoras escapes in the fabulous Hell of* . Pythagoras is not mentioned at all by Dante; perhaps means *escapes notice altogether*. Or, the meaning may b he *escapes condemnation*.

P. 65. *fearful*] Almost all edd., both old and modern, and after *fearful*, though in the "Errata" of C it is direc be deleted.

P. 66. *the Immortality of Plato*] viz. the *Phædo*. See tarch, *Life of Cato of Utica*, § 68. Compare the story of C brotus the Ambraciot, in the epigram of Callimachus (*Gr.* vii. 471; Cicero, *Tusc. Disp.* i. 34).

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= P. 70. *If we begin to die when we live*] Alluding probably to Manilius, *Astron.* lib. iv. l. 16, "Nascentes morimur."

P. 70. *work for Archimedes*] who in his *Arenarius* gives directions for the numbering of the sea-sand.

P. 70. *our days . . . make not one little finger*] That is, a hundred years is naturally the extreme length of human life. Compare *Vulgar Errors*, bk. v. ch. 20, p. 67, ed. Bolin; bk. vi. ch. 6, p. 142.

P. 71. *time hath no wings unto it*] i.e. *comparable unto it*. So in *Rel. Med.* pt. i. § 44, p. 69, "There is no torture to the rack of a disease"; and pt. ii. § 3, p. 99, "There is no reproach to the scandal of a story."

P. 71. *content . . . never to have been*] As Sophocles, *Ædip. Colon.* 1225 μη φῦναι τὸν ἅπαντα νικᾷ λόγον.

P. 73. *the prophecy of Elias*] This refers to a tradition of

the "house [school] of Elijah," mentioned in the Talmud. See *Rel. Med.* p. 72, and note, p. 274.

P. 75. *Hippocrates' patients*] In some of the treatises of the Hippocratic collection we find rough notes of medical cases with the names and addresses of the patients given: e.g. *Epid.* i. § 13, "Silenus lived on the Broadway, near the house of Eualcidas," &c.; "Cleonaetides, who was lodged above the Temple of Hercules," &c. "Melidia, who lodged near the Temple of Juno," &c. (pp. 371, 375, 381, Adams's Translation).

P. 75, note 4. *which men show, &c.*] Given in C\*, among the "Marginal Illustrations omitted," but first noticed in F. Inserted in the text by Sir John Evans (R). See above, p. 59, note.

P. 76. *Without the favour of the everlasting register*] These words are placed after *Agamemnon* (a few lines above) in A to E, and in some modern editions, though C\* plainly directs them to be put after *time*. F is the first edition that attends to this direction. It is a little uncertain whether the words ought to form the end of one sentence, or the beginning of the next. Probably Sir John Evans (R) is the only editor who takes the former view, which upon the whole seems the more likely to be correct, as otherwise C\* would have said, "Without" [*with a large W*] &c. to come in *before* "The first," &c.

P. 76, note 1. These words "Before the flood" are directed in C\*, D\* to be put among the "Marginal Illustrations," not in the text. Crossley (G) was the first editor who attended to the direction; for in F this and the following note are stupidly jumbled together. Wilkin (I) and some others insert them in the text.

P. 77, note 2. *Euripides*] The passage referred to is probably the following from the lost drama, *Polydus*:—

τίς δ' οἶδεν εἰ τὸ ζῆν μὲν ἐστὶ καθαεῖν,  
τὸ καθαεῖν δὲ ζῆν κάτω νομίζεται;

"The sublime guess of Euripides, which was greeted with ignoble ridicule by the comic poets, has become an assured truth in Christ." (Bp. Lightfoot, on *Philippians*, i. 22) See also the note on Euripides, *Hippolytus* 191-2, ed. Monk.

P. 77. *the brother of death*] viz. *sleep*, both being (according to the mythological genealogy of the Greeks) the children of *Night* (Hesiod, *Theog.* 123, 212, 758). Sir T. B. uses the same



within a parenthesis (as in D), though the sentence is awkward and hardly grammatical, yet the apparent contradiction is removed.

P. 80. *But man is a noble animal, &c.*] Southey (as Wilkin points out) quotes this striking passage in the opening of his *Colloques*, with the following note:—"I suspect that Sir Thomas Brown wrote *infamy*, a word which, though not regularly formed, would be more in his manner, and more in place. Anthony Wood speaks in his own *Life* (p. 190) of 'a young heir who put his father's papers to *infamous* uses.'"

P. 81. note 1. *According to, &c.*] This note is among the Addenda in C\*, D\*, but was first printed as a note in F. It is omitted in some modern edd.

P. 81. *we shall not all die, &c.*] See Bp. Wordsworth's *Commentary, in loco*, for a note upon the variations in the readings of this text,—1 Cor. xv. 51. Wielis, following the Vulgate, translates the passage, "and alle we schulen rise agen, but not alle we schulen be chaungid."

# NOTES

## CRITICAL AND EXPLANATORY, ON "THE GARDEN OF CYRUS."

Page ix. This Epistle Dedicatory is in the earlier c placed after that to Thomas Le Gros, without any very c reason : they were first separated in E.

P. ix. NICHOLAS BACON] This gentleman was the gr. of Sir Nicholas Bacon, who was created premier barc England in 1611, and was himself erved a baronet in He was a man of letters and a patron of learning ; partly his invitation which induced Sir T. B. to sc Norwieh, and it was to him that some of the *Miscellany* were addressed. He died in 1666. (Abridged from W notes, vol. i. p. lx ; vol. iii. pp. 381, 384.)

P. ix. *Dioscorides . . . in his march about with An* Dioscorides, in the Preface to his work *De Materia* (p 4, ed. Sprengel), merely says of himself that he h a military life and had travelled much ; but it is probab Sir T. B. (after Suidas) confounded together two phy of the same name. See Smith's *Dict. of Greek and a Biogr.*

P. x. *old in those singularities*] Wilkin (I) has *hold*, must be a mere typographical error, and which is only r because it is repeated in Bohn's reprint (K).

P. xi. *any other diagrams, &c.*] That is, no illustrations, except the frontispiece representing the quineunx, and the *battalia*, on p. 114.

P. xii. *Cato seemed to dote upon cabbage*] Pliny, *Hist. Nat.* xix. 41, 1 ; xx. 33.

P. xii. *That we conjoin, &c.*] Alluding to his joining this tract to his "Hydriotaphia." (Note in F.)

P. xii. *in flowers, C\*, D ; with flowers, E ; flowers, A, B, C.*

P. xii. *that this should succeed the other*] The first edition of the two "Discourses" contains the *Hydriotaphia* and *Garden of Cyrus*, placed in the order which is followed in this volume.

P. xiii. *arcana*, D; *arcana's*, A, B, C, E.

P. 91. *if made by Semiramis*] Pliny, *Hist. Nat.* xix. 19, 1.

P. 92. *with many conceptions elevated, &c.*] Wilkin (I) extracts from MS. Sloan. 1847 the following passage, evidently intended for this work: "We are unwilling to diminish or loose the credit of Paradise, or only pass it over with [the Hebrew word for] *Eden*, though the Greek be of a later name. In this excepted, we know not whether the ancient gardens do equal those of later times, or those at present in Europe. Of the gardens of Hesperides, we know nothing singular, but some golden apples. Of Alcinous his garden, we read nothing beyond figs, apples, and olives; if we allow it to be any more than a fiction of Homer, unhappily placed in Corfu, where the sterility of the soil makes men believe here was no such thing at all. The gardens of Adonis were so empty that they afforded proverbial expression, and the principal part thereof was empty spaces, with herbs and flowers in pots. I think we little understand the pensile gardens of Semiramis, which made one of the wonders of it [Babylon], wherein probably the structure exceeded the plants contained in them. The excellency thereof was probably in the trees, and if the descension of the roots be equal to the height of trees, it was not [absurd] of Strebæus to think the pillars were hollow that the roots might shoot into them."

P. 92. *famous Syrian king of Diodorus*] *Biblioth. Hist.* ii. 10.

P. 92. *the very name of Paradise, &c.*] פֶּרֶדֶס in *Eccles.* ii. 5, and *Song of Solomon*, iv. 13; a word which "is the Zend *pairidaêza*, properly an enclosure." (Professor Driver, *Introduction to the Literature of the Old Testament*, p. 422 n.)

P. 92. *a garden and a buckler*] גֻּבֵּן, גִּבֵּן.

P. 94. *King Attalus lives for his poisonous plantations*] Plutarch, *Demetrius*, 25. He is referred to also in *Religio Medici*, p. 209.

P. 94. *many of the ancients do poorly live in the single names*

*of vegetables*] Referring probably to names such as Hyacinthus, Iris, Narcissus, Jasonian (from Jason), and "Helenius Helena natum" (Pliny, *Hist. Nat.* xxi. 91).

P. 94. *in use before by Varro*] "Si sata sunt in quincunc" *De Re Rust.* l. vii. 2.

P. 94. doubled *at the angle*, C\*, D, E; *doubted*, A, I; Wilkin (I) has *double*, probably a typographical error, which is repeated in Bohn's reprint (K).

P. 95. *rectangular*] One of the Errata in C, first corrected by Wilkin (I); *regular*, A to F.

P. 95. *pattern in the sky*] Referring to the well-known vision of Constantine the Great, when he was commanded "ut cœleste signum Dei notaret in scutis" (*Lactantius De Mort. Pers.* 44).

P. 96. *we should have*, A to E; *shall* seems an unnecessary correction by Wilkin (I), repeated in Bohn's reprint (K).

P. 97. *character of Venus*] ♀ the astronomical sign of planet Venus.

P. 98. *the brazen table of Bembus*] Cf. "Bembine Table" p. 148. In Spineto's *Hieroglyphics* it is stated that "the table, which is of bronze, five feet long and three feet wide, divided into several partitions, filled with all sorts of hieroglyphics; and this strange mixture alone, independent of other reasons equally strong, seems to establish the fact that a monument of a modern date, fabricated at Rome towards the latter end of hieroglyphical writing, by some person who knew but little about the science, but who wished to express some of the strange doctrines, rites, and ceremonies, which had been introduced in the mysteries of Isis, when they were established in Rome, but very different from those once celebrated in Egypt." The tablet passed from Cardinal Bembo's collection to the Duke of Mantua, and is now in the Museum at Turin. It is commonly known as the Table.

P. 99. *the emphatical word*] This is ὄψαρος. See *Odyss.* vii. 112.

P. 99. *Ulysses . . . was promised by his father forty fig-trees, &c.*] *Odyss.* xxiv. 310-11.

P. 99. *deducible from Theophrastus, &c.*] *Hist. Plant.* iv. 4, 8.

P. 100 *Saturn . . is discovered to be Noah*] This opinion was maintained by Bochart, in his *Geographia Sacra*, published 1646. He considers the identity so firmly established as not to admit the possibility of a doubt.

P. 100. *his three sons, C\*, D, E; stones, A, B, C.*

P. 101. There is an important variety of reading here. A, B, C have *to fix such . . . no higher*, which is neither sense nor grammar; D has *to fix such . . . to higher*, which is as bad; F has *to fix such . . . to no higher*, which gives the right sense, but is unauthorized; E (which has a certain amount of authority, as being the first edition published after the author's death) has *to fix to such . . . no higher*, which gives a good sense, and is rightly adopted by Wilkin (I).

P. 101. *the first sin of the new world*] Drunkenness, as being the first offence recorded in Holy Scripture after the Deluge.

P. 108, note 3. *the larger sort of medals*] Additional note in C\*: first used by Wilkin (I).

P. 109. *chapiters of the pillars, C\*, D; chapters, A, B, C, E.*

P. 109. *the rushy labyrinths of Theocritus*] *Idyll. xxxi. 11.*

P. 110. *although why Vulcan bound them, &c.*] The hidden meaning of the story is expounded by Leo Hebræus, in "*De Amoris Natura et Essentia*," *Dial. ii.* p. 420; a work published with the treatise of Archangelus quoted on p. 192, *infra*.

P. 110. *vaiied, A; varied, B to E.* The reading of A has been restored; as probably correct.

P. 112. *the chet mat, A, B, C, E, F; chec-mate, D.*

P. 112. *which might continue*] One of the Errata in C, first corrected by Wilkin in I, all previous editions having "*and might continue.*"

P. 112. *played at Penelope, A, B, E; at omitted by C, D.*

P. 112. note 2. *Plato*] This reference is omitted by Wilkin (I) and in Bohn's reprint (K), though found in A to F.

P. 113. *illustrable from Aristotle*] *Quæst. Meehan. xxii.*

P. 114. *the battle of Africa*] This was Zama; see the account in Livy, xxx. 33.

P. 116. *before the first rank*] One of the Errata in C; *rank* omitted in A to E:

P. 116. *the famous pillars of Seth*] See Josephus, *Antiq. i. 2*;

## THE GARDEN OF CYRUS.

and Sylvester's *Du Bastas, Weeks and Works: 2. The Columns.*

P. 116, note 2. *obelisks, &c.*] This note was added was not inserted in any following edition before Wil

P. 119. *seven hundred, C\**; *five hundred, A to E.*

P. 121. *music of the spheres*] Pliny, *Hist. Nat.* ii. totle, *de Carlo*, ii. 9; Porph in *Harm. Ptol.* 4. 257.

P. 121. *the sevenfold pipe of Pan*] Virgil, *Ecl.* Sometimes there were nine reeds; Theocritus, i 18 22.

P. 122. *the head of Taurus, C\**; *neck, A to E.*

P. 123. *jacca pinca, A, B, C\**; *jacea pinan, C, D, E*

P. 124. *may find the scraglio of Solomon*] This n to the 700 wives and 300 concubines in 1 Kings xi. 3

P. 124, note 3. *There being a single maggot, & note is among the Additions in C, D, but is first in F.*

P. 125. *mercury wild, D, E*; *weld, A, B, C, F.*

P. 127. *observable in furze*] *furze, A, B, C, D*; *fur:* corrected *furze* in F.

P. 127. *upon pollard oaks and thorns*] This note first in I, though it is one of the Additions in C, D.

P. 130, *roots and sprouts*] *and sprouts om. A to E:* Errata in C.

P. 132. *will root at that end*] Wilkin (I) has *the c.* is continued in Bohn's reprint (K)—without authorit

P. 133. *seminal powers, C\*, F*; *seminal pores, A to*

P. 135. *These and more, &c.*] This note is among tions in C, D, but is first given in F.

P. 135. *pill, woolley tuft*] *pill, C, C\**; *dill, A, bill, F.*

P. 135. *In a large . . . trees*] This sentence is omi to E. It is inserted in F, in accordance with the Errata in C; but is put as a note by Wilkin (I), and so continued in Bohn's reprint (K).

P. 137. *channelled side*] This is altered, needlessly, to *chan-* *nel*, by Wilkin in I, and in Bohn's reprint (K).

P. 139. *closing leaves, C\*, D*; *dosing leaves, A, B, C, E.*

P. 139. *which exceed not five*] This note is among the Additions in C, D, but is first found in E.

P. 140. *the five brethren of the rose*] Alluding to a rustic rhyme:—

"On a summer's day, in sultry weather  
Five brethren were born together;  
Two had beards, and two had none,  
And the other had but half a one."

(Note in I.) See also *Notes and Queries*, 6th Ser. iii. 466 iv. 73.

P. 141. *fifth touch*, C\*; *first touch*, A to E.

P. 142. *But the bramble*, C\*; *bryar* or *briar*, A to E.

P. 142. *Delphinium*, C\*; *Gallitricum*, A to E.

P. 145. *a pliant fancy*, A, B, C\*, E; *plain*, C, D.

P. 147 *in some Russia leather*] This grain is, however, artificially produced, and not as the author seems to suppose, natural. (Note in I.)

P. 148. *Jacob's cross . . . Manasses*] Referring to the position of Jacob's hands in blessing the two sons of Joseph, as narrated in Gen. xlviii. 13 14. For a summary of the patristic opinions upon this subject, see Bp. Wordsworth's *Commentary*, *in loc.*

P. 148, note 1. *Crucis ansata*, &c.] This note is one of the Additions in C, D.

P. 149. "*Thou hast curiously embroidered me*"] Ps. cxxxix. 15. See also Exod. xxvi. 1, 36; xxxv. 35.

P. 149. *the fantastical quincunx in Plato*] *Symposium*, 189-191.

P. 150. note 1. *Μεγάλη κοιλία*, &c.] This note was added in C, D; it is omitted in E, and only the Latin given by Wilkin (I).

P. 151. *the Greek translation of the priest's fee*] *σθηθύνιον*, Lev. vii. 21, LXX.

P. 152. *seases*] So in all the editions, except D, which has "seats," which may possibly be right. The word "seases" is not to be found in any Dictionary, but a correction would be mere guess-work.

P. 153. *the legs of Castor's horse in the Capitol*] The "remarkable absurdity" is evident in the illustration in Piranesi's *Vedute di Roma*, vol. ii. pl. vi. Evelyn saw the statue in 1644, but does not mention this deformity. (*Diary*, i. 109.)

P. 154. *flower of Christ's passion*] Sir T. B. may have had his attention drawn to the then newly-discovered Passion-flower, by reading the account of it in Bosio's *La Trionfante e Gloriosa Croce*, a book which he refers to on p. 97, *supra*.

## THE GARDEN OF CYRUS.

P. 154. *Aiain, Vivin, Lilil.*] Wilkin prints in Sir . Works, i. 366, a letter (MS. Sloan. 3515 from Dr. Pe . the author, asking "in what plant these tearmes are inco . The question still remains unanswered.

P. 154. *Aiain, C\** ; *Acaia, A to E.*

P. 156. *stars of Charles wain, C\** ; *star, A to E.*

P. 157, note 1. *To be observed, &c.*] So *C\**, *D\**, but in *E*, and only partly given in Wilkin (1).

P. 160. *gnatworms*] The rest of the treatise is in *F*.

P. 161. *the rule of Solon*] Plutarch, *Solon*. 23.

P. 162. *the plane tree in Pliny*] *Hist. Nat.* xii. 5.

P. 162. *generality of trees, C\** ; *generation of trees, A* .

P. 164. *upon thyme, savory*] *savory, A to E* ; Wilkin some singular mistake has *ivory*, which in Bohn's repr becomes *ivy*.

P. 165. *several trees be made to grow about the br Acheron*] Homer, *Odyss.* x. 509-10.

P. 166. *in a pot of earth*] *pot, C\** ; *plot, A to E.*

P. 166. *annual conversion*] "Flectat ad Aquilonem, clinit ad Austrum," (*sic*) is Solon's description of the mc the sun.—Author's note, from MS. Sloan. 1847. (Note

P. 170. *why fenny waters afford the hottest and sweetest &c.*] Compare George Herbert's poem "Providence".—

"Most herbs that grow in brooks are hot and dry."

P. 171. *wherein by no industry Harpalus could make ivy grow*] See Plutarch, *Life of Alexander*; Theophrastus, *Hist. Plant.* iv. 4; and Pliny, *Hist. Nat.* xvi. 62.

P. 174. *Alexander found no trees so accommodable to build his navy*] Arrian, vii. 19.

P. 174. *stand not directly, C\** ; om. *stand, A, B, C, E* ; are not directly, *D*.

P. 175. *the tree mentioned in the Canticles*] The A. V. has "cypress" in the margin, in both passages—i. 14 and iv 13. The R. V. has "henna." Wiclif, following the Vulgate, has "cipresse."

P. 178. *And therefore, &c.*] The extract in *M* begins here and continues to the end.

P. 178. *colours of mediocrity*] *Mediocris colores* were all the



shades between white and black, which were styled *extremi colors*. See Beyerlinck's *Magu. Theat.* t. iii. p. 304.

P. 179. *Helmout's tree*. The botanist J. B. van Helmont (1577-1644) supported his theory of the production by plants of all kinds of material from water, by an experiment upon a willow, which he watered in a pot with rain-water for five years. See Sach's *History of Botany*, p. 455 (Oxford, 1890).

P. 181. *Pluto*, C\*, D; *Plato*, A, B, C, E.

P. 182. *light but the shadow of God*] In the *Rel. Med.*, pt. i. § 10, Sir T. B. uses the same expression in Latin as a quotation, "Lux est umbra Dei."

P. 182. *The greatest mystery of religion*] That is, the Incarnation, as expressed by the words "virtus Altissimi obumbrabit tibi" (St. Luke i. 35, *Vulg.*).

P. 182. This paragraph seems to contain the germ of Blanco White's "great" sonnet, "Night and Death," the curious literary history of which, with the variations in the text, is given by Mr Dykes Campbell in the *Academy*, Sept. 12, 1891. See also Main's *Treasury of English Sonnets*, pp. 125, 397. [Last note written by Dr. Greenhill.]

P. 185. *Of this figure Plato made choice*] *Timæus*, xxxvi.

P. 186. *Justin Martyr took for granted*] *Apologia*, i. 60.

P. 186. *which was the systasis*, A, B, C\*, E; om. *was*, C, D.

P. 187, note 1. *ἐχίασεν, κ.τ.λ.*] These words are among the additions in C, D, but they are not given in any former edition.

P. 187. *the mercurial characters*] ὅ the character of the planet Mercury. See p. 97, *supra*.

P. 187. *ἐχίασεν, κ.τ.λ.*] The words occur in Justin Martyr, *Apologia* i. 60, and have been explained as meaning,—“He impressed him as a *χίασμα*, i.e. in the form of the letter χ, upon the universe. Plato is speaking of the soul of the universe.” (Justin Martyr, *Clark's Ante-Nicene Christian Library*, p. 58, note.)

P. 188 *yet cannot omit*, A, B, C, E; *I cannot*, D.

P. 188. *five surnamed the number of justice*] Sir T. B. seems here to have confused four, the number of justice, and five, the number of marriage. See Macrobius, *Somnium Scipionis*, lib. C, p. 18.

P. 188, note 2] The nine asterisks are omitted in B.

P. 189. *the middle point, &c.*] Referring perhaps to the description of the game called *τὸ πεσσόν* in which, according

P. 100. *the amphidromical feasts*] See Aristophanes, *Lys.* 757; Plato, *Theat.* 160; Athenæus, ix. 370; and Suidas, whose words are καὶ δῶρα πέμπουσιν οἱ προσήκοντες ὡς ἐπὶ τὸ πλείστον πολὺποδας καὶ σπηΐας.

P. 109. *the men of Cadmus?*] Apollodorus, iii. 1. 1.

P. 199. *Proteus in Homer*] *Odyss.* iv. 411-13.

P. 199 *the fifth year's ox*] Homer, *Il.* ii. 403; vii. 315.

P. 199. *the soul a rhombus*] *Meditations*, viii. 41; xi. 12.

P. 200, note 1. *Hyades . . . at that time*] In our latitudes, the Hyades are near the western horizon at midnight at the beginning of March. Thus we have an interesting, and very characteristic, intimation of the date when the last words of this book were penned.

P. 201. *Night . . . the daughter of Chaos*] Hesiod, *Theog.* 122

## ADDENDA.

Page 162. Note on p. 5, n. 1, *prolato*] This is so in all the old editions, and therefore has not been corrected to *plorato*.

Page 166. Note on pp. 25-28. These are the passages of which Philipott made use without acknowledgement in the *Villare Cantianum*, 1659, pp. 249-251. Sir T. B. mentions the plagiarism in his *Common Place Books*.

Page 183. Note on p. 192, *the letter E.*] This is He (η), and rightly, in all the old editions. In Wilkin's edition (I) and Bohn's reprint (K), it is erroneously printed E, and the mistake was not corrected in collating for this edition.

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- Contemner, *despiser*, 63. Used also in *Rel. Med.* 191. l. 3.
- Contempered, *deteriorated by mixing*, 3, 19.
- Contignations, *act of framing or uniting beams*, 147.
- Continuities, *texture or cohesion of parts*, 112.
- Cornigerous, *horned, having horns*, 150.
- Coronally, *like a crown, or circle*, 98.
- Cosmography, *description of the world*, 79.
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- Counters, *common, ordinary arithmeticians*, 70.
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- Crambe verities, *stale, tedious*, alluding to the Greek *κράμβη*, 199. Also used in *Rel. Med.* 123. l. 17.
- Cremation, *burning of the dead*, 5, 9, 14.
- Creteaceous, *having the qualities of, or abounding with, chalk*, 152.
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- Cruelgerous, *marked with the figure of a cross*. Stone of St. Jago. *Chiasolite*, from *χιασμός*, *decussated*, 95, 122.
- Crusero, *the Southern Cross*, 122.
- Cryptography, *act or art of writing in secret characters*, 121.
- Culinarly, *in cooking*, 149.
- Cuneus, *a wedge, a military term*, 115.
- Cupel, *a refining vessel used in cupellation, the process of refining gold and silver by melting them in a cupel with lead*, 45. *Copel*, obsolete form used by Sir T. B.
- Curiosity of plants, *interest in plants, inclination to learn about them*, 91.
- Declinations, *inclination*, 166.
- Decline, *to shun, avoid*, 6, 7, 14, 32, 40, 47, 96.
- Decretory, *definitive, settle*, 81.
- Decussation, *decussated, decussatively, decussative, crossing at an acute angle, intersection in the form of X*, 95 bis, 98, 99, 110, 112, 113, 143, 152, 186.
- Defensive, *that which serves to guard or defend*, 126.
- Delivered, *recorded, handed down*, 14, 28, 100.
- Delormity, *departure or difference in shape*, 119.
- Delivereth, 25, 91, 134.
- Dellveries, *histories, accounts*, 99, 161.
- Depositure in dry earths, *defecation, laying down, interment*, 8, 9.
- Descensions, *astronomical phrase*, 77.
- Diameters, *diminish their, shrink into nothing*, 83.
- Diametrically, *diametrically*, 153.
- Diametrals, *diameters*, 152.
- Diaphanous, *transparent*, 114.
- Dietetical conservation, *preservation for food*, 40.
- Differenced, *distinguished*, 125.
- Diffusions, *spread, extension*, 162.
- Dipteres hypathres, 179.



Discover, *display, betray*, 28.

Disparage, *to undervalue, depreciate*; we shall not think our reader requires us to repeat the solemnities, &c., 14.

Dispersed, *spread out*, 100.

Dispersedly, *in a dispersed manner*, 18.

Disposed unto, *hale to*, 45.

Duration, *length of time, long duration*, 69, 73, 77.

Divinity, used for *divines*, 99, 106.

Draught, *sketch, outline, drawing*, 9, 39 *ter*, and frequently.

Drive at, *aim at*, Ep. Ded. vii, 53.

Ductors, *leaders or commanders*, 115.

Eccentric, *deviating from the centre*, 169.

Ecliptically, *from the right hand to the left*, 166.

Edificial, *architectural*, 113.

Effluviuims, *powerful exhalations*, 163.

Elbow, applied geographically to an *angle of a country*, 17.

Eldest parcels, *oldest*, Ep. Ded. v. Sir T. B. uses *elder* for *older* in *Rel. Med.* 20 l. 20: 63. l. 10; and in *Vulgar Errors*, vii. 4, p. 218 (ed. Bohn).

Embezzle, *to squander, waste*, 37.

Embryon philosophers, more commonly *embryo* (Gr. *ἐμβρυον*), *in an undeveloped state*, 63. Found also in *Christ. Morals*, pt. iii. sect. 11, pt. ii. sect. 5.

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Entelechia or soul of our subsistences (Gr. *ἐντελέχεια*), not used exactly in Aristotle's sense of *actuality*, but rather *the perfection or chief excellence of our existence*, 75. The word occurs also in *Rel. Med.* pt. i. sect. 8, p. 19, l. 12 (where see note in *Golden Treas. ed.*), and in *Miscell. Tracts*, xi. vol. iii. p. 258, ed. Bohn.

Equal, *equitable*, 6.

Equicrural, *isosceles, having legs of equal length*, 110.

Equivocal production, *irregular, out of order*, 135. The meaning is that of spontaneous generation, a notion still entertained in Sir Thomas Browne's time.

Evacuate hopes, *to make void, to nullify*, 68. *Evacuo* is used in the Vulgate as the rendering of St. Paul's *καταργέω* (Rom. iii. 3), and *κερῶ* (1 Cor. i. 17).

Evulsion, *extraction or pulling out*, 113.

Exception, *objection, cavil*, 2nd Ep. Ded. xi.

Excitate, *to arouse*, 58.

Excoriable, *that may be stripped off, or excoriated*, 147.

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Evisceration, 42.

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smallness, thinness, 22. Used also by

Bacon.

Exolution, more properly *exsolution*, in *Mystical Theology*, *rapturous languor*, 83. Used also in *Christ. Morals*, *in fin.*



- Expilators, *pillagers*, 41.  
 Explantations, *offshoots*, 158.  
 Explication, *opening, unfolding*, applied to leaves or flowers, 122, 139, 140.  
 - Exsuccous, *without juice, dry*, 56, 150, 151.  
 - Extenuate, *disparage, depreciate*, 65.  
 Fasciated, *bound or bandaged up*, 120.  
 Fasciations, *bandages*, 12, 107.  
 Favaginites, *honeycomb stone, mellilite*; an opalescent variety of sapphires, 122. See Plin. *Hist. Nat.* xxxvii. 47.  
 Favaginous sockets, *resembling a honeycomb*, 126.  
 - Feeding the wind, *feeding on the wind*, 78.  
 Feretra, *biers*, 10.  
 Ferity, *barbarity, cruelty*, 45. See also *Christ. Morals*, pt. iii, and *Vulgar Errors*, bk. vii. ch. 19, sect. 3.  
 Fictile vessels, *moulded by the potter*, 43.  
 Figurations, *configuration, giving a certain form*, 168.  
 Flat . . . truths, *dull, spiritless*, 199. The meaning would seem to be *smooth, without relief*, as metal plates.  
 Flatuous, *distension, caused by flatus or wind*, 134.  
 Flexures, *bends or folds*, 146.  
 Foliaceous, *leafy*, 134.  
 Foliations, *the forming into leaves, leafing*, 126, 170.  
 Foliose emission, *leafy*, 135. Used also in *Christian Morals*.  
 Foraminous roundles, *round forms full of holes*, 135.  
 Forceps, *a kind of battle-array*, 115. (*Gell.* x. 9.)  
 - Fore-being, *pre-existence*, 83.  
 Fore-writers, *former writers*, Ep. Ded. x.  
 Frustums, *any part, except the vertex, cut off from a cone*, 155.  
 Fulciment, *the fulcrum of a lever*, 113.  
 Funerally burnt, 5.  
 Furdling, *furling*, 128.  
 Fusil, *spindle-shaped figure in heraldry*, 110.  
 Gallature, *treadle of an egg*, 138.  
 Geomancer, *a diviner by the earth*, 198.  
 Geometrizeth, *how nature*, 145.  
 Geometry of nature, *the*, 141.  
 - Gloss, *to embellish with superficial lustre*, 53.  
 Gomphosis (Gr. γόμφωσις), *immovable articulations like teeth in their sockets*, 155, 159.  
 Gustation of God, *spiritually tasting*, 83.  
 Handed crosses, *cruces ansatæ*, 187. (See *Edin. Review*, 1870, for a valuable dissertation upon the pre-Christian cross in its various forms.)  
 Handsome account, *anticipation, economy*, 8, 43, 55, 100, 190.  
 - Handsomely, *liberally, skilfully, elegantly*, 3, 65, 114, 146, 175, a favourite word of Sir Thomas.  
 Harmony, ἀρμονία, *the union of two bones by simple apposition of their surfaces* (Galen, *De Oss. præm.* tom. ii. p. 137, ed. Kühn), 159.  
 Hastati, 113, 114.

- Hatches, *hachures*, short lines in engraving, representing half-tints and shadows, 110.
- Hazardable, *venturous*, uncertain, 42.
- Heads, most industrious, Ep. Ded. vi, in the sense of persons, intellects, a favourite word with Sir Thomas.
- Helical roundels, *spiral*, 155.
- Herbarists, *herbalists*, 115.
- Herbary, the art of gardening, 90.
- Herby plants, of the nature of herbs, 162.
- High, early, in point of time, 16, 18, 112.
- Hinted, we were, a hint was given us, we took a hint, Ep. Ded. v.
- Hippodrome urns, called *echēa*, ἡχέαι. Vitruvius, *De Architect.* i. 1. sect. 9; v. 3. sect. 8. Ep. Ded. iv. Vessels of like kind were let into the walls of the theatre, to strengthen the sound, *Vitruv.*; or to imitate the noise of thunder, *Schol. Ar. Nub.* 292 (Liddell and Scott). See also E. B. Denison (Lord Grimthorpe) in *Transactions of R. I. B. A.*, 1855. There are some of these urns in Sir T. B.'s church, St. Peter Mancroft.
- Hold, to measure, 119; to hold good, 183.
- Holdfasts, attachments, 164.
- Horny-coat, the cornea of the eye, 183.
- Hottest use, severest treatment, 11.
- Houseleek, a defensive against thunder and lightning, 125. (For this superstition, see Brand's *Popular Antiquities*, iii. 317.)
- Hypogæum, Jewish, 39.
- Identity, to reproduce the same as before, 51.
- Ildtyde (Danish), fire tide, to signify the era of cremation, 26 note.
- Illustrable, capable of being illustrated, 113.
- Imbibition, imbibing, sucking, or drinking in, 164.
- Impulsors, that which communicates impulse or motion, 113.
- Impute, imputation, 2nd Ep. Ded. xii.
- Incession, walking, motion, 152.
- Incidence, angle of, 184 bis.
- Incinerable, reducible to ashes, 34.
- Incommixed, unmixed, 43.
- Inconsonant unto reason, inconsistent with, 58.
- Incorrupted, uncorrupted, 42.
- Incrassated, . . . . . incrassation, thickening, 33, 134.
- Incremable . . . . . 53.
- Indenture, . . . . . sed in the Prayer Book.
- Indifferentl . . . . . is, meanness, a word coined by
- Infamy of . . . . . Southey (*Colloquies* i. 305), as a conjectural emendation in p. 80 for *infamy*.
- Inflexures, bends or folds, 139.
- Inhumation, burying, 3, 10, 178.
- Inlays, inlayings, 157.
- Inniteny, leaning, 113.
- Inservient to, conducive to, subservient, 112.
- Integral conservation, preservation entire, 8.
- Inter-arboration, spaces in planting trees, 177.

Intercolumniation, *space between columns*, 177.

Intermission, *interval*, 177.

Inter-nodiall parts of vegetables, *spaces between*

Inversedly, *upside down*, 130.

Iterated, *repeated*, 58.

Iterately, *by repetition or frequent use*, 40.

Jew's-harp in an urn, 22.

Lacrymatories, *tear-bottles*, 21, 33 *bis*.

Lash, *soft and watery, but without flavour*, 194. "F  
some and lash" (Forby's *Vocabulary of East Anglia*).

Laureat draught, *a picture with laurel*, 106.

Life is but the shadow of death, 182.

Ligature, *application of a bandage*, 178.

Light is but the shadow of God, 182. So in *Rel. Med.* pt. i. sect. 10,  
"Lux est umbra Dei."

Lixivious liquor, *lixivial, impregnated with alkaline salts*, 48.

Low, *late in time*; Lower, *later*, 22, 201.

Madding vices, *making mad*, 72. Cf. "Far from the madding crowd's  
ignoble strife" (Gray's *Elegy*).

Magnalities, *great works from small beginnings*, 136.

Magnified Cyrus, *celebrated*. See also, magnified Merlin, in *Vulgar  
Errors*, vii. 16, 1.

Malcontent of Job, sub., *malcontentedness, discontent*, 71. The word  
is printed in different edd., *male-content, male-content, malecontent,*  
*mal-content, and malcontent.*

Mandrakes, *living near an hundred years*, 133, 169.

Maniples, *handfuls*, 2nd Ep. Ded. xi, 113. (Latin *manipulus, a company  
of soldiers*.)

Martyr the records (verb), *to destroy*, Ep. Ded. vi.

Mascle (heraldic term), *a lozenge voided*, 110.

Massiest, 2nd Ep. Ded. ix.

Massy, *massive, heavy*, 118, 119. Used also in *Rel. Med.* 204. l. 11.

Maturation of seeds, *ripening, coming to maturity*; maturative  
progress, *ripening*, 134 *bis*.

Mercurial characters, *letters or figures relating to Mercury*, 187. See  
note.

Metropolis of humidity, *chief seat of (the brain)*, 45.

Mind us, *remind*, Ep. Ded. vi.

Mistle-berry, *mistletoe berry*, 123. (Cf. *missel-bird = thrush*.)

Mitral crown, *in the shape of a mitre*, 107.

Mounts of the hand, *elevations*, 198.

Mummy, *a liquor distilled from mummies, or from dead bodies*, 79  
See note.

Native notes, *birth-marks*, 156; native posture, 58.

Nauseating crambe verities, *being sick of*, 199.

Nettle, *to provoke, annoy*, 111.

Nib, spelt by Browne *nebbe, generative particle of a plant*, 129, 130,  
131 *bis*, 181.

- Nictics, *scruples*, 7.  
 Nominations, *naked*, *mere names*, 75.  
 Numerist, *one who deals in numbers*, 191.
- Obliquations, *obliquity, declination from the right angle*, 149.  
 Observables, *things to be observed*, 142.  
 Observators, *tutelary, defenders*, 72.  
 Obtain, *be accepted*, 185.  
 Obvert, *turn aside or against*, 170.  
 Old in, *long practised, experienced*, 2nd Ep. Ded. x.  
 Opal, 14. (This opal stone appears to have been a crystal globe, which is frequently discovered in barrows and urns, vide *Nenia*. Or perhaps glass beads — Douglas, note in J).  
 Opinion (verb), *to be of opinion, to opine*, 5. Used also in *Rel. Med.* 40. l. 24.  
 Oracle of, *to have the, to be able to foretell the fate of*, Ep. Ded. iii.  
 Ordination, *arrangement, order*, of plants, &c., 103, 121, 126, 127, 143, 171, 188.  
 Ossuaries, *places for the bones of the dead*, 33, 37, 71.  
 Ostracion, *a genus of rough-skinned fishes, trunk-fish*, 147.  
 Outlast, *to survive*, Ep. Ded. vii, 69.  
 Outwear, *to outlast*, 69.  
 Over-queried, *too often asked*, 199.
- Palisadoed, palisadoes, *palisaded, palisades*, 124, 125. The Spanish word was not quite naturalized when Sir T. B. wrote. See Skeat's *Etymological Dictionary*, and comp. "Statua," *infra*.  
 Pappous flowers, *furnished with a pappus or down*, 155. (Lat. *papposus*.)  
 Paralogical doubt, *illogical, unreasonable*, 101. Johnson does not admit the word into his Dictionary, and in his *Life of Browne* gives it as an instance of the superfluous words introduced by him. Sir T. B. also uses *paralogism* and *paralogy* (*Vulgar Errors*, iii. 2 : vii. 3).  
 Paramours, *lovers* (not in a bad sense), 62, 112.  
 Parcels, *eldest, oldest numbers or quantities*, Ep. Ded. v, 32, 38.  
 Peculiar (subst), *characteristic, special property*, 79.  
 Pensile, *hanging*, 91.  
 Pentagonally, *so as to have the form of a pentagon*, 139.  
 Pentalithismus, 112. Πενταλίθια, Jul. Pollux, *Onomasticon*, ix. vii. 16.  
 Perflation, *through current of air*, 163.  
 Perihypate meson, 197.  
 Perspectives, *perspective glasses, telescopes*, 79. Used also in *Rel. Med.* 78. l. 19.  
 Phalanx, *Macedonian, long thought invincible*, 115.  
 Phoenix, *the*, 13.  
 Phytology, *a discourse or treatise of plants, or the science of plants*, 2nd Ep. Ded. x.  
 Piece, a favourite word with Sir T. B., "complete piece," Ep. Ded. vi; "concealed pieces," 31; "neatest pieces," 145; "piece of antiquity," 117; "piece of art," 42; "piece of folly," 73; "piece of gallantry," 102. See *Rel. Med.*  
 Plashes, *small pools of standing water, puddles*, 150.

## GENERAL AND GLOSSA

- Plures, like *oi πλείονες*, used euphemistically for  
*dead are more in number than the living* (see *Al*  
*prius me ad plures penetravi?* " (Plautus, *Trin*  
 Point of compute, *date of reckoning*; an epoch.  
 Polary life, *polar*, such as prevails at the poles, 1.  
 Pole star, the, 121.  
 Politickly, *for political reasons*, 6, 71.  
 Ponderation, *the act of weighing*, 44. (Cf. *Vulgar* . . .  
 Populosity, *populousness*, 19.  
 Post-geniture, *the condition of a child born after another in the same*  
*family*, 93.  
 Precariously, *doubtfully, with uncertainty*, 154.  
 Precogitations, *previous thoughts*, 200.  
 Prime baronet, *premier, of the oldest creation*, 2nd Ep. Ded. xi.  
 Principals, their, *original subject-matter*, 2nd Ep. Ded. x.  
 Principes, 113, 114.  
 Profundeur (Mod. Fr., *profondeur*), *depth*, 162.  
 Progressional, *preparatory*, 67.  
 Progressionally, *gradually*, 190.  
 Propension unto, *inclination for*, 70.  
 Proprietaries, *proprietors*, 71.  
 Proprieties, *properties, peculiarities*, 161, 200.  
 Pulvinaria, *cushioned seats*, 106.  
 Puncticular, *comprised in a point, of very small size*, 137.  
 Punctilio, *a point*; hence, *a very small body*, 131.  
 Pyral combustion, *on a funeral pile*, 57, 61.  
 Pyramidally, *by means of a pyramid*, 72.  
 Pyre, of all things, the final, 6.  
 Quadrate, *a square*, 116, 117, 118 bis, 119. Used by Spenser, *Faery*  
*Queen*, II. ix. 22.  
 Questuary operation, *for the sake of profit*, 152.  
 Quincuncial, *having the form of a quincunx*, 2nd Ep. Ded. x, 123,  
 126, 182.  
 Quincunx, *an arrangement or disposition of things by fives in a square,*  
*one being placed in the middle of the square*, 98, 110, 116, 119, 126.  
 Quinquernio, *a set of five*, 95.  
 Quintuple, *fivefold*, 94, 103, 127.  
 Radiation, *disposition of branches*, 162, 180.  
 Radication, *the process of taking root deeply*, 162.  
 Rampiers, *ramparts*, 17.  
 Rams' horns, the plant *Orchis mascula*, 172.  
 Rational (subs.), *an exposition, rationale*, 55.  
 Refection, *refreshment*, 164.  
 Regardable, *worthy of regard or notice*, 146.  
 Relation, to pretend, to claim relationship, Ep. Ded. vii.  
 Relentment, *a moist, softening, relaxation, dissolution*, 6.  
 Remarkables, *remarkable objects*, 112.  
 Repairable, *capable of being repaired or renewed*, 53.  
 Required, *looked for*, 171.  
 Resolution, *solution, explanation*, 25; *dissolution*, 10.

- Resound, v. a. *to proclaim*, Ep. Ded. iv.  
 Rested in, *been contented with*, 3, 59, 66, 189.  
 Retiarie, retinary, *net-like*, 108, 109, 110, 142.  
 Reticulate, *formed of net-work*, 109, 127, 147, 148.  
 Rhetorick of the dead, the sensible, 46. Compare with this Hooker's saying, "That the life of a pious clergyman was visible rhetoric" (Walton's *Life of Hooker*).  
 Rhombus, or lozenge figure, 115, 126, 143, 172, 174.  
 Rolsold (Danish?), *burning age*(?), to signify the era of cremation, 26 note.  
 Rose of Jericho, 150.  
 Roundle, *a round form or figure*, 136, 155.  
 Run, *to pursue in thought, to carry in contemplation*, Ep. Ded. v.  
 Run, the highest, *the height of the fashion*, 7.  
 Salient animals, *moving by leaps, bounding, jumping*, 153.  
 Sallow, *willow*, 44, 166.  
 Saltyres, *heraldic crosses*, formed by the combination of a bend and a bend sinister, 110.  
 Salve the individuality, *to cure or remedy*, 51. According to Gardiner, as if from A. S. *seal fian*, but more correctly from Lat. *salvo*, meaning "to help or save by a salvo," an excuse or reservation (Johnson). See *Rel. Med.* 379.  
 Salvaged, tolerably, 40. See also *Vulgar Errors*, p. 250. l. 22.  
 Sation, *sowing or planting*, 172.  
 Scrupulous, not, *without any objection*, 11.  
 Seases and sockets, 152. See note.  
 Sea starre, *the star-fish*, 197.  
 Self-killer, *suicide*, 60.  
 Sella curulis, or ædyle chairs, 108.  
 Seminal, seminality, *productive, the power of production*, 131, 133, 135, 136, 154, 179, 181.  
 Seminal humour, 45.  
 Septuagint expression, *according to the LXX*, 24.  
 Sesqui-tertian, *having the ratio of one and one-third to one*, 158.  
 Shake hands with, *to say farewell to, give up*, 201. The expression is used also in *Rel. Med.* 8. l. 28; 66. l. 10.  
 Sheet, *printed page, book*, 2nd Ep. Ded. x.  
 Signality, *meaning, signification*, 98.  
 Smallage, *an umbelliferous plant, Apium graveolens*, called also, especially as improved by cultivation, *celery*, 61.  
 Smart, *quick, vigorous*, 3, 77; *smartly*, 37.  
 Sockets, of bones and plants, 123, 126, 141, 152, 155.  
 Solisequious plants, *following the sun*, 165.  
 Solstitially, *at the solstices*, 166.  
 Specious, *beautiful*, 41, 66, 69, 102.  
 Speran, used as a contraction for *spermaceti*, an animal substance used for lighting, 34.  
 Spermatical, *pertaining to the seed*, 134.  
 Sphericity, *spherical character*, 193.  
 Spicated, *having the form of a spike or ear; arranged in a spike*, 126, 155.

## GENERAL AND GLOSSARY:

- Spicous, *spicose, cored like corn*, 123.  
 Spindles, *stalks*, 176.  
 Spring anything new, to, *to produce quickly or* : -  
     Ded. x.  
 Spruce subject, a, *fine*, 2nd Ep. Ded. xi. Johns  
     that it was "anciently used of things with a s  
     now used only of persons, and with levity."  
 Squamous, *covered with scales, scaly*, 123.  
 Staminois, *stamineous*, 128.  
 Statua, *statue*, 31, 103. The Latin form of the w  
     not been completely naturalized in English in  
     uses it in *Rel. Med.* 107. l. 14. It occurs four ti  
     ed. of Bacon's *Essays*, 112, 157, 182, 192.  
 Sticked not, *hesitated not, scrupled not*, 9.  
 Students of perpetuity, *seekers after immortality*, 75.  
 Supinity of elder days, *negligence, supineness, carelessness*, Ep.  
     Ded. vi. Also used in *Vulgar Errors*.  
 Tartarus of hell, *the place of torment after death*, 60.  
 Technology, *doctrine or system of the useful arts*, 192.  
 Tedious, *weary, tired*, 71.  
 Tegument, *covering*, 32.  
 Telarly, *in a web-like manner*, 156.  
 Telesmes, *talismans, a kind of amulet or magical charm*, 97.  
 -Temerarious, *unreasonably adventurous*, 64.  
 Tenacles (Lat. *tenaculum*), *little hooks*, 164.  
 Tenuifolious, *having thin or narrow leaves*, 176.  
 Teretous, *terete, cylindrical and slightly tapering*, 176.  
 Testaceous, *of earthenware*, 31.  
 Textury, *the art of weaving*, 111.  
 Thick-skinned, *of dense understanding*, 13.  
 Thin, *rare, scarce*, Ep. Ded. vi.  
 Thrums, *the thread-like, internal bushy parts of a flower*, 155.  
 Thwart enclosure, *thwarting, across something else, transverse*,  
     128, 153.  
 Tortile, *twisted, wreathed*, 160.  
 -Tranquillity, *possess their constitutions in, i.e., are of tranquil*  
     *constitution* (cf. St. Luke xxi. 19), 67.  
 -Transcorporating philosophers, *believers in the doctrine of the*  
     *transmigration of souls*, 55.  
 Transmuteth, *changes into a different substance* (alluding to the theory  
     of transmutation of metals), 45.  
 Transome, *a thwart-piece across a double window, &c.*, 96. From Lat.  
     *transstrum*, see Skeat's *Etymological Dictionary*.  
 Transvertible, *capable of being inverted*, 130.  
 Treddles, *treadle, a step*, 138. The albuminous cords which unite the  
     yolk of the egg to the white, so called because formerly supposed to be  
     the sperm of the cock.  
 Trilarii, 113, 114.  
 Triquetrous, *having three salient angles or edges, the faces between*  
     *them being concave; three edged; trigonal*, 105.  
 Trite learning, *commonplace, hackneyed*, 2nd Ep. Ded. x.

Tulipata, *people engaged in cultivating tulips*, 2nd Ep. Ded. xii.  
 Tutelary, *protecting*, 72, 148.

U finita, *a rule without exception*, 2nd Ep. Ded. xi. In allusion to the prooedical rule in the old Latin grammar, "U finita procucuntur omnia," the last syllable of every word ending in *u* is long.

Ulliginous coats, *muddy, slimy*, 179.

Umbrella of elder, *the*, 125.

Unconcerned, *not relative*, 98.

Uncous, *hook-like, hooked*, 123.

Undiscernable, *indistinguishable, invisible*, 136.

Undiscerned, *uncertain*, 135.

Undoing, *ruinously expensive*, 81.

Unition, *joining, union*, 158.

Univocacy, *regularity, certain order*, 135. Cf. "equivocal," *supra*.

Unto, *that is comparable unto*, 71. See Note.

Unwish itself, *to wish never to have been*, 71. In *Vulgar Errors*, Bk. i. ch. 10, p. 77, ed. Bohn, we find "to unwish their own being."

Ἐπομόχλιον, *the fulcrum of a lever*, 113.

Urging fire, *fierce, devouring*, 43.

Urnal, *in urns*, 9, 48.

Use, *hottest*, 14. See *hollest*.

Ustrina, *the place for burning dead bodies*, 15.

Vacuties, *open spaces*, 114, 117.

Vagrant vision, *unconfined eyesight*, 178.

Vaired coats, *charged with vair, the heraldic expression for the skin of the squirrel*, 110. See Note.

Valediction, *a farewell*, 19, 56.

Vas ustrinum, 43.

Vegetable shop, *order, kingdom*, 200. The meaning here of "shop" seems to be the source or place where anything is made. Thus, "the shop of the whole body" (Shakespeare, *Coriolanus* i. 1).

Veneficial, *injurious, harmful*, 109.

2nd Ep. Ded. x, xi.

198.

Vineal, *consisting of vines*, 100.

Vinosity, *vinous character or quality*, 33.

Volutation, *a rolling, as of a sphere on a plane surface*, 141.

Warily observes, *cautiously*, 166. Used also by Marlowe, *Jew of Malta* i. 1.

Waved the fiery solution, *abandoned, gave up*, 8. The spelling *wave*, for the more modern form *waive*, is continued by Johnson, who does not give *waive* in his Dictionary.

Wedge of Britain, *corner of the coast*, 17.

Wide, *within wide limits, not precise*, 71.

Wingy divisions, *resembling wings*, 181.

Yew-trees, *why planted in churchyards*, 57.